

510(K) Summary of Safety and Effectiveness

JAN 09 2013

Date Prepared: 12 October 2012

1. **Submitted By:**

John Roberts
Regulatory Affairs Specialist
BD Medical - Medical Surgical Systems
1 Becton Drive
Franklin Lakes, NJ 07417
Tel: 201 847 5473; Fax: 201 847 5307

2. **Device Name:**

Trade Name: BD PhaSeal® Closed System Drug Transfer Device
Common Name: Closed antineoplastic & hazardous drug reconstitution & transfer system
Classification Name: Intravascular administration set
Classification: Class II, 21 CFR 880.5440

3. **Predicate Device:**

BD PhaSeal® Connector, Injector, Protector – K120384

4. **Device Description:**

The PhaSeal® System is a sterile single-used closed system drug transfer device. The closed transfer of liquid takes place through a double membrane utilizing self-sealing elastomeric membranes, tightly fitted together through a bayonet fitting on all PhaSeal components. A single lumen cannula perforates the double membranes for the transfer of liquid. When the cannula is retracted the membranes seal off the transfer of environmental contaminants into the system and/or escape of drug or vapor concentrations outside the system, thereby minimizing the individual and environmental exposure to drug vapor, aerosols and spills and also minimizing the risk of microbial contamination.

5. **Indications for Use:**

The PhaSeal system is an airtight and leakproof closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal system also prevents microbial ingress.

6. **Technological Characteristics:**

The technological characteristics of the subject device are identical to those of the predicate devices.

Characteristic	Subject Device: BD PhaSeal	Predicate Device: BD PhasSeal K120384	Equivalence
Transfer Mechanism	Elastomeric Double Membrane	Elastomeric Double Membrane	Identical to Predicate
Connection between PhaSeal Components	Bayonet Fitting with Elastomeric Double Membrane	Bayonet Fitting with Elastomeric Double Membrane	Identical to Predicate
Components	Protector, Injector, Connector	Protector, Injector, Connector	Identical to Predicate
Protector Spike	Stainless Steel or Plastic	Stainless Steel or Plastic	Identical to Predicate
Injector Cannula	Stainless Steel	Stainless Steel	Identical to Predicate
Fitting Connection to external standard syringe	Injector: Luer / Luer Lock Connection	Injector: Luer / Luer Lock Connection	Identical to Predicate
Fitting Connection to external standard IV line	Luer Lock or Spike Port	Luer Lock or Spike Port	Identical to Predicate
Fitting Connection to external standard IV bag	Spike	Spike	Identical to Predicate
Needle Safety Feature (Injector Only)	Safety sleeve	Safety sleeve	Identical to Predicate
Sterilization Method	EO	EO	Identical to Predicate

7. **Performance:**

The additional tests referenced in the table have been provided in order to substantiate the use of product code ONB - Closed antineoplastic and hazardous drug reconstitution and transfer system – for the BD PhaSeal® Closed System Drug Transfer Device. BD has included the additional airtight and leakproof requirement as both of these requirements are cited by the National Institute for Occupational Safety and Health (NIOSH) and the International Society of Oncology Pharmacy Practitioners (ISOPP) as essential requirements necessary to reduce health care workers from exposure to hazardous drugs. In addition, NIOSH also cites the need to prevent contaminants from entering the closed system during transfer. As such, BD proposes to extend the microbial ingress claim to the entire system; not just the PhaSeal Protector. As there is no change to the subject device in comparison to the predicate devices, the performance data provided represent the performance of both the predicate and subject device of this 510(k).

K123213

page 3 of 3

Item#	Performance Specification:	Status of BD PhaSeal® System
1	Leakproof Connections	No Leaks (Fluorescein Test) ^{1,2}
2	Airtight Connections	No Visible Smoke (TiCl ₄ Test) ³
3	Microbial Ingress	No Ingress at the Protector or Connector

8. **Conclusion:**

Based on comparison to the predicate device and the nonclinical tests provided, the modified BD PhaSeal® Closed System Drug Transfer Device is as safe, as effective, and performs as well as the legally marketed predicate device.

¹ Spivey S, Connor T. Determining sources of workplace contamination with antineoplastic drugs and comparing conventional IV drug preparation with a closed system. *Hosp Pharm.* 2003; 38(2): 135-139.

² Jorgenson J, Spivey S, Au C et al. Contamination comparison of transfer devices intended for handling hazardous drugs. *Hosp Pharm.* 2008; 43(9): 723-727

³ *Ibid.*



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
10903 New Hampshire Avenue
Document Control Center - WO66-G609
Silver Spring, MD 20993-0002

January 9, 2013

Mr. John Roberts
Regulatory Affairs Specialist
Becton Dickinson & Company
1 Becton Drive
MC237
FRANKLIN LAKES NJ 07417

Re: K123213

Trade/Device Name: PhaSeal[®] - Closed System Transfer Device
Regulation Number: 21 CFR 880.5440
Regulation Name: Intravascular Administration Set
Regulatory Class: II
Product Code: ONB
Dated: October 12, 2012
Received: October 15, 2012

Dear Mr. Roberts:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Page 2 – Mr. Roberts

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucml15809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Anthony D. Watson, B.S., M.S., M.B.A.
Director
Division of Anesthesiology, General Hospital,
Respiratory, Infection Control and
Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

Indications for Use Statement

510(k) Number (if known): K123213

Device Name: PhaSeal® – A Closed System Transfer Device

Indications for Use:

The PhaSeal system is an airtight and leakproof closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal system also prevents microbial ingress.

Prescription Use X AND/OR Over-The-Counter Use _____
(Part 21 CFR 801 Subpart D) (21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Page ___ of ___

Sajjad H.
Syed

Digitally signed by Sajjad H. Syed
DN: c=US, o=U.S. Government, ou=HHS,
ou=FDA, ou=People, cn=Sajjad H. Syed,
0.9.2342.19200300.100.1.1=200601742
Date: 2013.01.09 15:12:01 -05'00'

(Division Sign-Off)
Division of Anesthesiology, General Hospital
Infection Control, Dental Devices

510(k) Number: K123213

K123213

V.1



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

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Regulation Number: 21 CFR 880.5440
Regulation Name: Intravascular Administration Set
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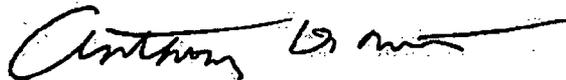
Page 2 – Mr. Roberts

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Sincerely yours,



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Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

Page 3 – Mr. Roberts

Concurrence & Template History Page
 [THIS PAGE IS INCLUDED IN IMAGE COPY ONLY]

Full Submission Number: K123213

For Office of Compliance Contact Information:

http://insideportlets.fda.gov:9010/portal/page?_pageid=197,415881&_dad=portal&_schema=PORTAL&org=318

For Office of Surveillance and Biometrics Contact Information:

http://insideportlets.fda.gov:9010/portal/page?_pageid=197,415881&_dad=portal&_schema=PORTAL&org=423

Digital Signature Concurrence Table	
Reviewer Sign-Off	<p>Mary E. Brooks</p> <p>Digitally signed by Mary E. Brooks DN: c=US, o=U.S. Government, ou=HHS, ou=FDA, ou=People, cn=Mary E. Brooks, 0.9.2342.19200300.100.1.1=1300372349 Date: 2013.01.07 18:28:59 -05'00'</p>
Branch Chief Sign-Off	<p>Digitally signed by Richard C. Chapman Date: 2013.01.08 06:53:02 -05'00'</p>
Division Sign-Off	<p>Anthony D. Watson</p> <p>Digitally signed by Anthony D. Watson Date: 2013.01.08 14:27:58 -05'00'</p>

Template Name: K1(A) – SE after 1996

Template History:

Date of Update	By	Description of Update
7/27/09	Brandi Stuart	Added Updates to Boiler Table
8/7/09	Brandi Stuart	Updated HFZ Table
1/11/10	Diane Garcia	Liability/Warranty sentence added at bottom of 1 st page
10/4/11	M. McCabe Janicki	Removed IFU sheet and placed in Forms
9/25/12	Edwena Jones	Added digital signature format
12/12/12	M. McCabe Janicki	Added an extra line between letter signature block and the word "Enclosure". Also, added a missing digit in 4-digit extension on letterhead zip code: "002" should be "0002".

Indications for Use Statement

510(k) Number (if known): K123213

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Prescription Use X
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use _____
(21 CFR 801 Subpart C)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

Page ___ of ___

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Syed

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Date: 2013.01.09 15:12:01 -05'00'

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Division of Anesthesiology, General Hospital
Infection Control, Dental Devices

510(k) Number: K123213

* * * COMMUNICATION RESULT REPORT (JAN. 9. 2013 4:26PM) * * *

FAX HEADER 1:
FAX HEADER 2:TRANSMITTED/STORED : JAN. 9. 2013 4:26PM
E MODE OPTION

ADDRESS

RESULT

PAGE

2387 MEMORY TX

2018475307

OK

3/3

REASON FOR ERROR
E-1) HANG UP OR LINE FAIL
E-3) NO ANSWERE-2) BUSY
E-4) NO FACSIMILE CONNECTION

DEPARTMENT OF HEALTH & HUMAN SERVICES

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COVER SHEET MEMORANDUM

From: Reviewer Name Mary Brooks
Subject: 510(k) Number K123913
To: The Record

Please list CTS decision code SE
 Refused to accept (Note: this is considered the first review cycle, See Screening Checklist.
http://eroom.fda.gov/eRoomReq/Files/CDRH3/CDRHPremarketNotification510kProgram/0_5631/Screening%20Checklist%207%20202%2007.doc)
 Hold (Additional Information or Telephone Hold).
 Final Decision (SE, SE with Limitations, NSE (select code below), Withdrawn, etc.).

Not Substantially Equivalent (NSE) Codes

- NO NSE for lack of predicate
- NI NSE for new intended use
- NQ NSE for new technology that raises new questions of safety and effectiveness
- NU NSE for new intended use AND new technology raising new questions of safety and effectiveness
- NP NSE for lack of performance data
- NS NSE no response
- NL NSE for lack of performance data AND no response
- NM NSE pre-amendment device call for PMAs (515i)
- NC NSE post-amendment device requires PMAs
- NH NSE for new molecular entity requires PMA
- TR NSE for transitional device

Please complete the following for a final clearance decision (i.e., SE, SE with Limitations, etc.):		YES	NO
Indications for Use Page	Attach IFU	X	
510(k) Summary /510(k) Statement	Attach Summary	X	
Truthful and Accurate Statement.	Must be present for a Final Decision	X	
Is the device Class III?			
If yes, does firm include Class III Summary?	Must be present for a Final Decision		X
Does firm reference standards? (If yes, please attach form from http://www.fda.gov/opacom/morechoices/fdaforms/FDA-3654.pdf)			X
Is this a combination product? (Please specify category _____, see http://eroom.fda.gov/eRoomReq/Files/CDRH3/CDRHPremarketNotification510kProgram/0_413b/COMBINATION%20PRODUCT%20ALGORITHM%20(REVISED%203-12-03).DOC)			X
Is this a reprocessed single use device? (Guidance for Industry and FDA Staff – MDUFMA - Validation Data in 510(k)s for Reprocessed Single-Use Medical Devices, http://www.fda.gov/cdrh/ode/guidance/1216.html)			X
Is this device intended for pediatric use only?			X
Is this a prescription device? (If both prescription & OTC, check both boxes.)		X	
Did the application include a completed FORM FDA 3674, Certification with Requirements of ClinicalTrials.gov Data Bank?			X
Is clinical data necessary to support the review of this 510(k)?			X
For United States-based clinical studies only: Did the application include a completed FORM FDA 3674, Certification with Requirements of ClinicalTrials.gov Data Bank? (If study was			X

YES NO

conducted in the United States, and FORM FDA 3674 was not included or incomplete, then applicant must be contacted to obtain completed form.)

Does this device include an Animal Tissue Source?

All Pediatric Patients age <= 21

Neonate/Newborn (Birth to 28 days)

Infant (29 days - < 2 years old)

Child (2 years - < 12 years old)

Adolescent (12 years - < 18 years old)

Transitional Adolescent A (18 - < 21 years old) Special considerations are being given to this group, different from adults age >= 21 (different device design or testing, different protocol procedures, etc.)

Transitional Adolescent B (18 - <= 21; No special considerations compared to adults => 21 years old)

Nanotechnology

Is this device subject to the Tracking Regulation? (Medical Device Tracking Guidance, <http://www.fda.gov/cdrh/comp/guidance/169.html>) Contact OC.

X
X
X
X
X
X
X
X

Regulation Number

Class*

ONB

Product Code

880-5440

Class II, Closed antineoplastic + hazardous

(*If unclassified, see 510(k) Staff)

drug reconstitution &

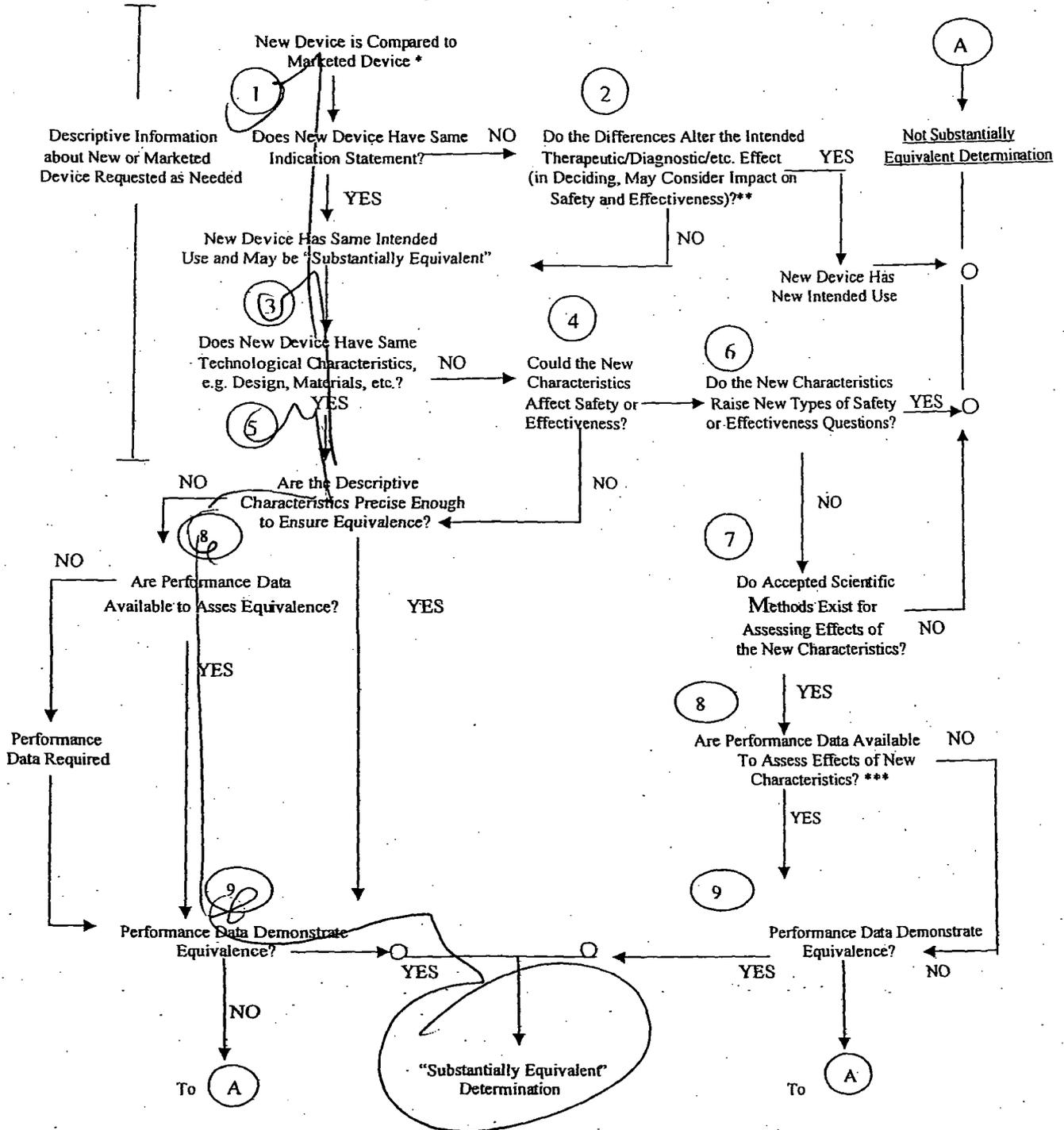
Additional Product Codes:

Review: Rhd CB 1/8/13 transfer system
(Branch Chief) (Branch Code) (Date)

Final Review: [Signature]
(Division Director)

1/8/13
(Date)

510(k) "SUBSTANTIAL EQUIVALENCE" DECISION-MAKING PROCESS



* 510(k) Submissions compare new devices to marketed devices. FDA requests additional information if the relationship between marketed and "predicate" (pre-Amendments or reclassified post-Amendments) devices is unclear.

** This decision is normally based on descriptive information alone, but limited testing information is sometimes required.

*** Data maybe in the 510(k), other 510(k)s, the Center's classification files, or the literature.



DEPARTMENT OF HEALTH AND HUMAN SERVICES MEMORANDUM

Food and Drug Administration
Office of Device Evaluation
9200 Corporate Boulevard
Rockville, MD 20850

**Premarket Notification [510(k)] Review
Traditional**

K123213

Date: January 7, 2013
To: The Record
From: Mary Brooks RN, BNS, MS

Office: ODE
Division: DAGRID

510(k) Holder: BD Surgical Systems
Device Name: BD PhaSeal Closed System Transfer Device
Contact: John Roberts
Phone: (201) 847-5473
Fax: (201) 847-5307
Email: john_w_roberts@bd.com

I. Purpose and Submission Summary

The 510(k) Becton, Dickinson and Company would like to re-classify the previously cleared PhaSeal Closed System Transfer Device under product code ONB (b) (4)

The wording in the indication for use statement has been modified to better reflect the definition of ONB product code. There is no design or performance change associated with this 510(k) submission. The subject device and predicate are identical. There are no changes in material or manufacturing process. The performance specifications, device design, models, accessories and components are identical to the predicate device

II. Administrative Requirements

	Yes	No	N/A
Indications for Use Section 3, page 11 Prescription	X		
Truthful and Accuracy Statement Section 5, page 16	X		
510(k) Summary Section 6, page 17	X		
Standards Data Report Form – Form 3654 1: No standard used - No Standards Form Required 2: Declaration of Conformity - Yes Standards Form Required 3: Standard but no declaration - Yes Standards Form Required	X		

III. Device Description

	Yes	No	N/A
Is the device life-supporting or life sustaining?		X	

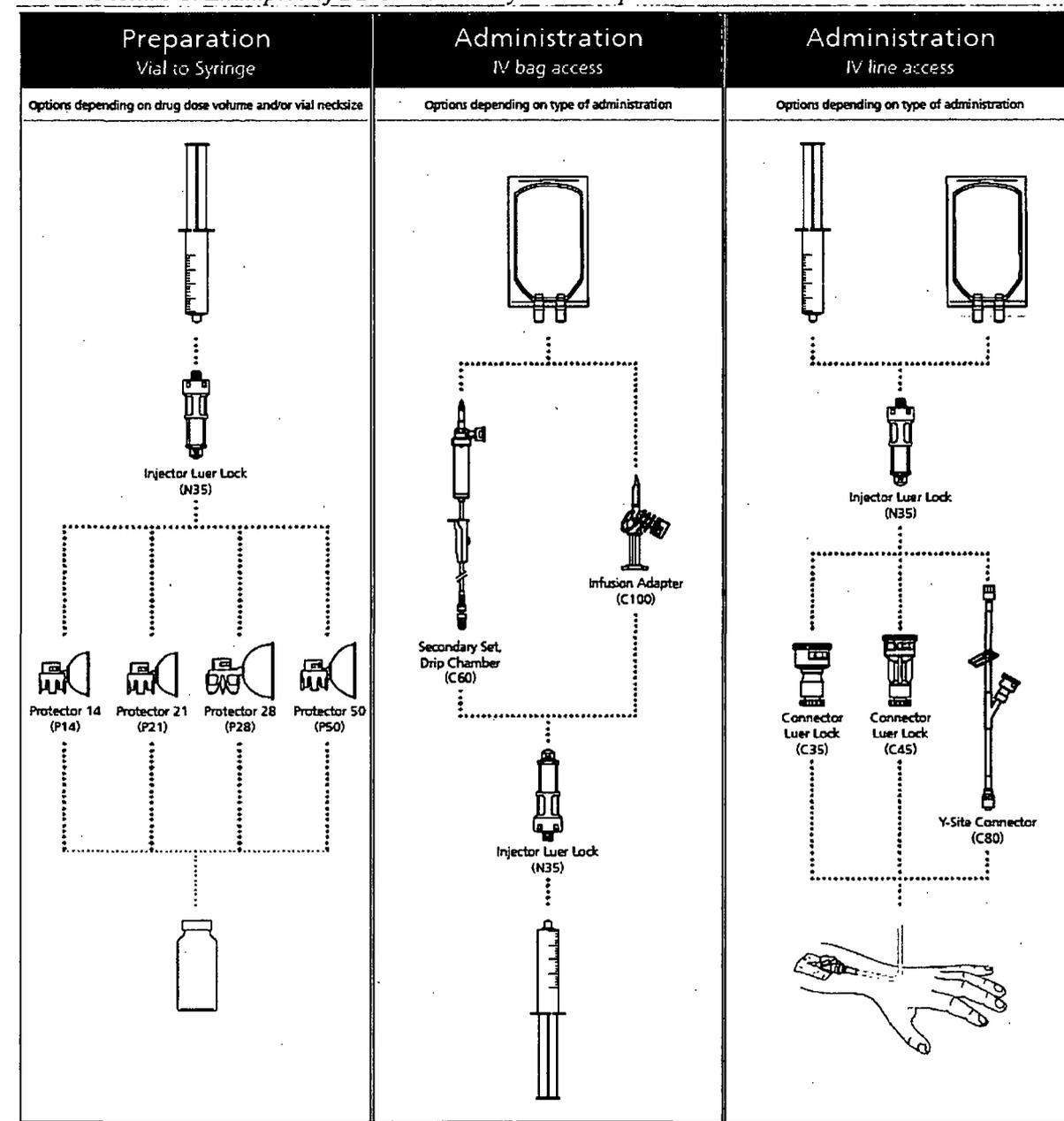
	Yes	No	N/A
Is the device an implant (implanted longer than 30 days)?		X	
Does the device design use software?		X	
Is the device sterile?	X		
Is the device reusable (not reprocessed single use)? Are "cleaning" instructions included for the end user?		X	

The PhaSeal® System is a sterile single-used closed system drug transfer device. The closed transfer of liquid takes place through a double membrane utilizing self-sealing elastomeric membranes, tightly fitted together through a bayonet fitting on all PhaSeal components. A single lumen cannula perforates the double membranes for the transfer of liquid. When the cannula is retracted the membranes seal off the transfer of environmental contaminants into the system and/or escape of drug or vapor concentrations outside the system, thereby minimizing the individual and environmental exposure to drug vapor, aerosols and spills and also minimizes the risk of microbial contamination. The PhaSeal® System is composed of the following components. Each of the components has been cleared via various 510(k)s. However, the entire system was once again cleared on 12 Sep 2012 for a modification to the indications for use.

Table 1. List of components of PhaSeal System and their respective 510(k) numbers.

PhaSeal Protector	P14	K120384
	P21	K120384
	P28	K120384
	P50	K120384
PhaSeal Injector	N30C	K120384
	N31	K120384
	N35	K120384
	N35C	K120384
PhaSeal Connector	C35	K120384
	C45	K120384
	C40	K120384
	C48	K120384
	C50	K120384
	C60	K120384
	C61	K120384
	C70	K120384
	C80	K120384
	C100	K120384

Picture 1: Examples of BD PhaSeal® System and process

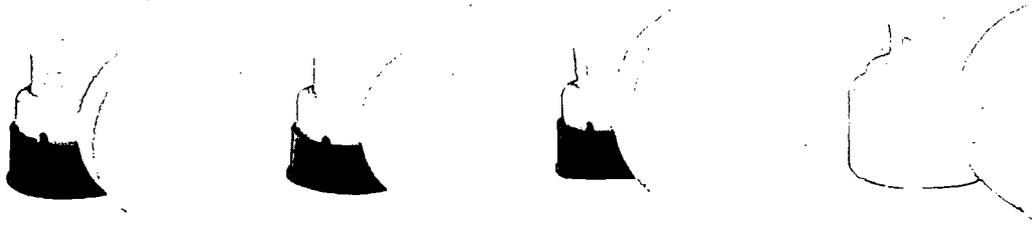


Description of Each Component of the PhaSeal System

- **PhaSeal Protector:**

The Protector is a drug vial adapter that is fitted to the drug vial and seals against the closure of the vial - see Picture 2. The Protector is used as a docking station between the drug vial and the Injector for injection of diluents into the drug vial and/or extraction of liquid drug from the vial. In addition the Protector equilibrates the pressure difference which occurs when fluid or air is added or removed to/from the drug vial. The Protector is provided in four different sizes which are intended to be compatible with various sizes of drug vials ranging from necks from Ø13mm to Ø28mm.

Picture 2: PhaSeal Protector

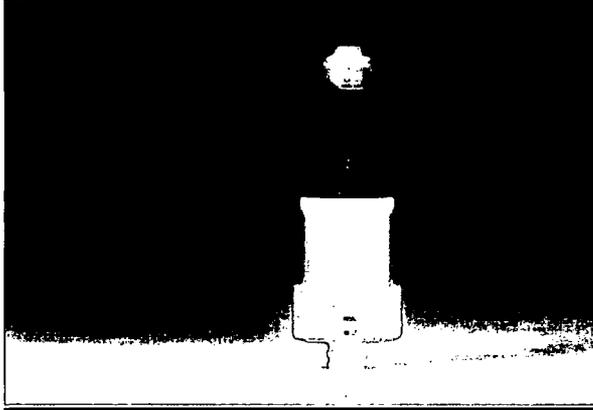


- **PhaSeal Injector:**

The Injector is designed with a single lumen cannula that is encapsulated in a plastic chamber- see Picture 3. One end of Injector locks onto an external device (i.e. syringe) equipped with Luer or Luer Lock fitting. The other end of Injector is sealed with a thermoplastic elastomeric membrane. The elastomeric membrane mates with the "docking station" of the PhaSeal Protector or PhaSeal Connector component equipped with the corresponding "docking station" (i.e. bayonet fitting). The bayonet fitting allows the two elastomeric membranes to be pressed together and a sealed transfer of drug to/from the Protector or to the Connector can be made.

The Injector has a safety feature that must be released to allow the cannula to penetrate the elastomeric membranes and the drug vial stopper. The safety feature is disengaged and re-engaged via the decisive push-turn-push ErgoMotion™ which is described in the BD PhaSeal Instructions for Use. While engaged, the cannula will remain in the safety sleeve – the blue color portion of the Injector. Once attached to a Protector or Connector, the Injector cannot be separated from the bayonet fitting until the needle has been fully retracted into the sealed chamber and the safety feature is re-engaged to ensure the cannula is in the sealed chamber. Thereafter the bayonet fitting can be opened and the Injector is released from the "docking station".

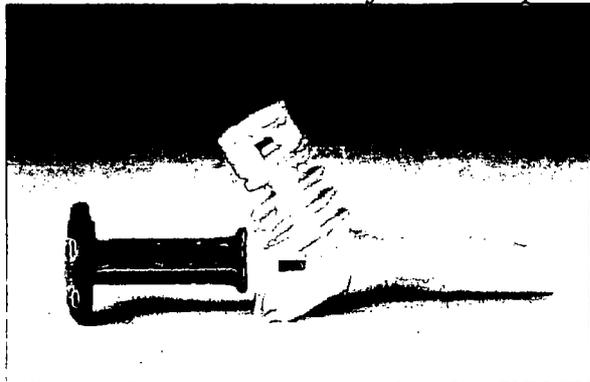
Picture 3: PhaSeal Injector



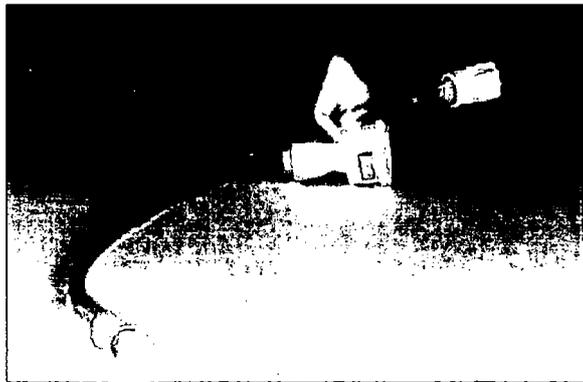
- **PhaSeal Connector:**

The Connector is the interface for patient administration of the drug – see pictures 4-7. The bayonet fitting of the Connector mates with the Injector. The elastomeric membranes of the Connector and the Injector press together to create a seal that enables closed transfer of drug to the patient IV line or into an IV bag. After the drug transfer, the Injector cannula is pulled back via the decisive push-turn-push ErgoMotion™ into the safety sleeve and the Injector can be separated from the Connector. Connectors are provided with a variety of device mating features including a luer fitting, an IV spike (infusion adaptor), secondary set or Y-site connector

Picture 4: Connector – Infusion Adaptor



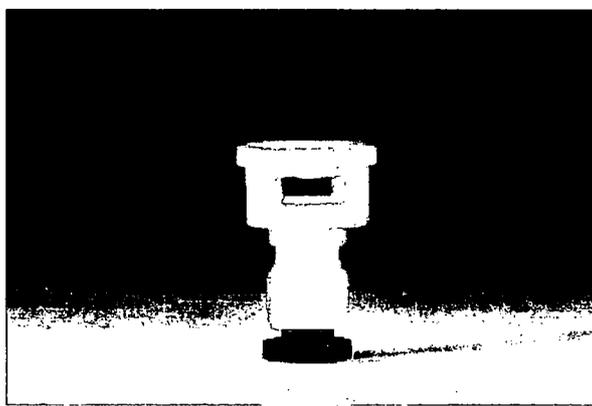
Picture 5: Connector – Y-Site



Picture 6: Connector - Secondary Set



Picture 7: Connector – Luer Lock



IV. Indications for Use

The PhaSeal system is an airtight and leakproof closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside of the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal System also prevents microbial ingress

BD has included the additional descriptors “airtight” and “leakproof” to align with the definition of Closed System Transfer Devices provided by the National Institute for Occupational Safety and Health (NIOSH) and the International Society of Oncology Pharmacy Practitioners (ISOPP). These characteristics of Closed System Transfer Devices are essential requirements to reduce health care workers from exposure to hazardous drugs.

Potential routes of exposure to hazardous drugs include, but may not be limited to, dermal absorption, inhalation and ingestion. As none of the possible entry points can be eliminated as a potential risk, ISOPP specifies that only “Airtight” and “Leakproof” devices prevent chemical contamination:

- A product described as a closed-system must be “leakproof and airtight”—therefore vented, filtered devices are not closed. A product cannot be “semi-closed;”
- The vapor of cytotoxic products are not retained by filters with a diameter of 0.22µm and HEPA filters;

- To avoid confusion, it is strongly recommended that if a device claims to prevent chemical contamination it should be airtight and leakproof.¹

In concurrence with these requirements proposed by ISOPP, NIOSH offers the following definition:

- Closed system drug-transfer device (CSTD): a drug transfer device that mechanically prohibits the transfer of environmental contaminants into the system and the escape of hazardous drug or vapor concentrations outside the system.²

It is also important to note that NIOSH stresses that a CSTD must also prohibit the transfer of environmental contaminants into the system. As such, BD has further modified the indication concerning microbial ingress to include the entire system as opposed to just the PhaSeal Protector.

To summarize, between the three definitions provided by FDA, NIOSH and ISOPP, BD has identified three critical characteristics of a CSTD.

- The system is airtight
- The system is leak proof
- The system prevents contaminants from entering the system

Reviewer Note: Acceptable

The modifications to the indication for use are within guidelines of FDA and NIOSH. The sponsor has provided supportive documentation in the submission to make the claims above for the

V: Predicate Device Comparison

Characteristic	Subject Device: BD PhaSeal	Predicate Device: BD PhaSeal K120384	Equivalence
Transfer Mechanism	Elastomeric Double Membrane	Elastomeric Double Membrane	Identical to Predicate
Connection between PhaSeal Components	Bayonet Fitting with Elastomeric Double Membrane	Bayonet Fitting with Elastomeric Double Membrane	Identical to Predicate
Components	Protector, Injector, Connector	Protector, Injector, Connector	Identical to Predicate
Protector Spike	Stainless Steel or Plastic	Stainless Steel or Plastic	Identical to Predicate
Injector Cannula	Stainless Steel	Stainless Steel	Identical to Predicate
Fitting Connection to external standard syringe	Injector: Luer / Luer Lock Connection	Injector: Luer / Luer Lock Connection	Identical to Predicate
Fitting Connection to external standard IV line	Luer Lock or Spike Port	Luer Lock or Spike Port	Identical to Predicate
Fitting Connection to external standard IV bag	Spike	Spike	Identical to Predicate
Needle Safety Feature (Injector Only)	Safety sleeve	Safety sleeve	Identical to Predicate
Sterilization Method	EO	EO	Identical to Predicate

VI. Labeling**Reviewer Notes: Acceptable**

The device name did not change from the identical predicate. The labeling is identical to their previous cleared device.

VII. Sterilization/Shelf Life/Reuse**Reviewer Notes: Acceptable**

This device is identical to their recently cleared predicate. The changes were to the wording in the indication for use statement which has been modified to better reflect the definition of ONB product code.

VIII. Biocompatibility**Reviewer Notes: Acceptable**

The device is identical to their recently cleared predicate. The only changes were to the wording in the

indication for use statement which has been modified to better reflect the definition of ONB product code. There are no modifications or changes in materials.

IX. Software N/A

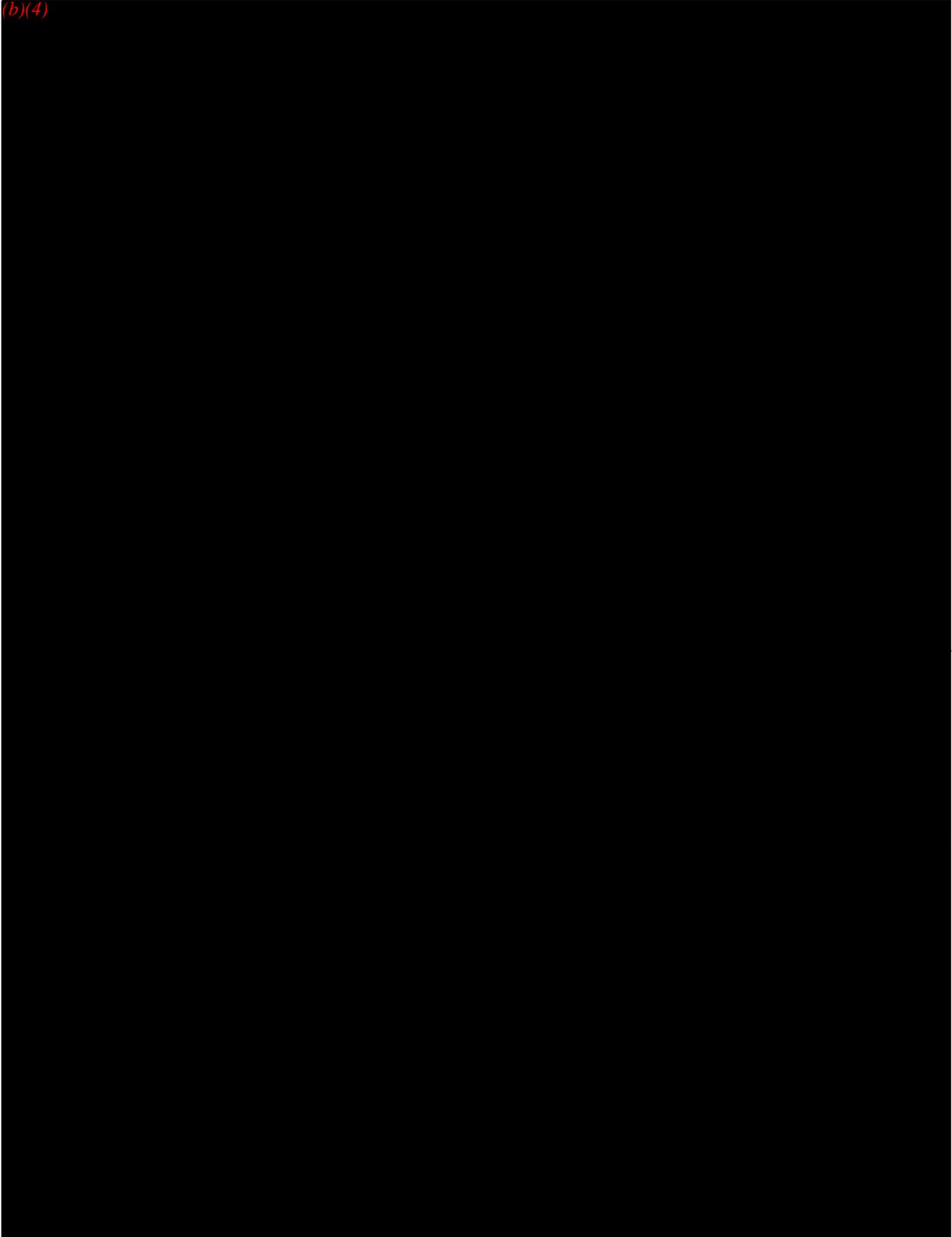
X. Electromagnetic Compatibility and Electrical, Mechanical and Thermal Safety N/A

XI. Performance Testing – Bench

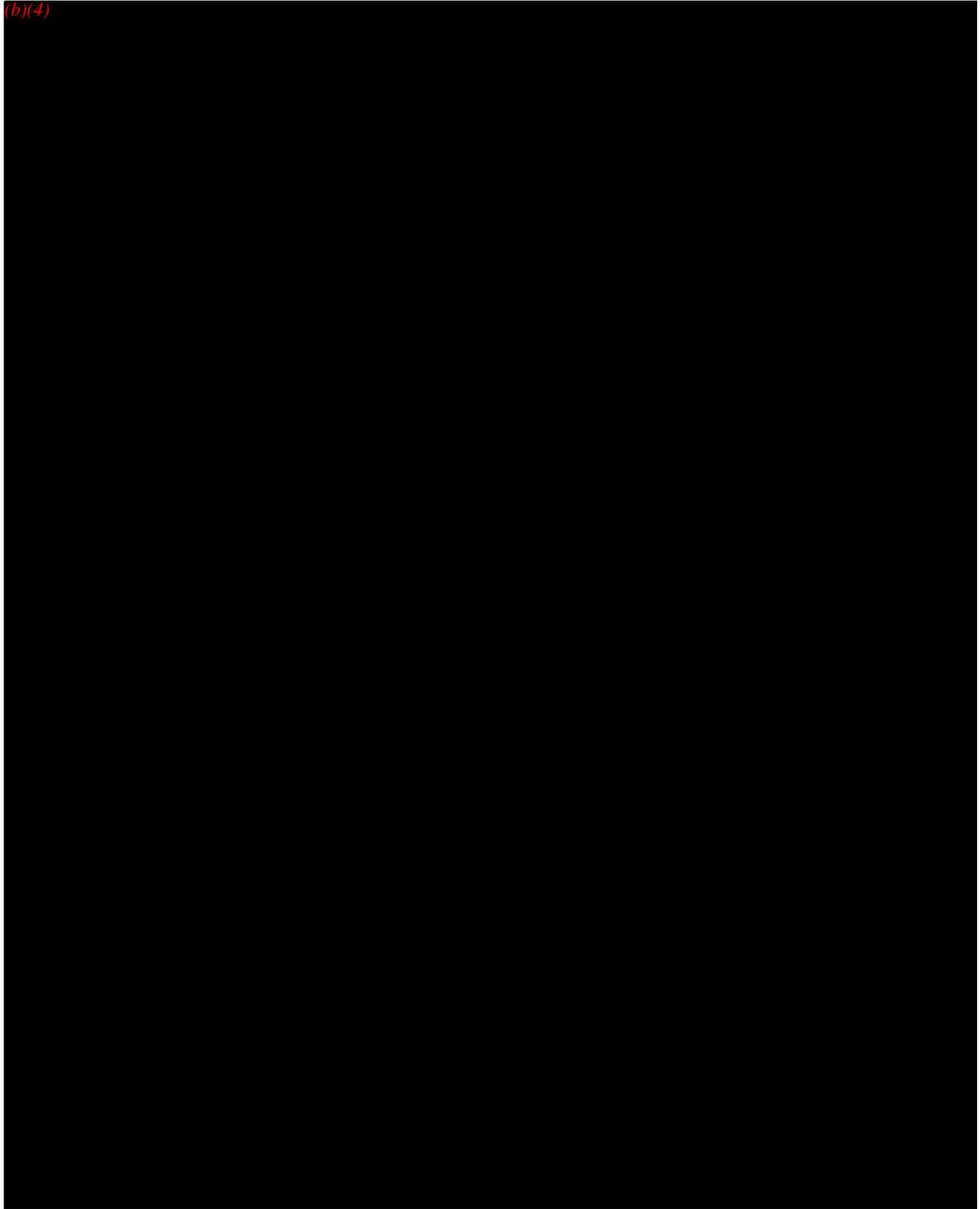
(b) (4)



(b)(4)



(b)(4)



(b)(4)

XII. Performance Testing – Animal N/A

XIII. Performance Testing – Clinical

XIV. Substantial Equivalence Discussion

	Yes	No	
1. Same Indication Statement?		X	If YES = Go To 3
2. Do Differences Alter The Effect Or Raise New Issues of Safety Or Effectiveness?			If YES = Stop NSE
3. Same Technological Characteristics?	X		If YES = Go To 5
4. Could The New Characteristics Affect Safety Or Effectiveness?			If YES = Go To 6
5. Descriptive Characteristics Precise Enough?		X	If NO = Go To 8 If YES = Stop SE
6. New Types Of Safety Or Effectiveness Questions?			If YES = Stop NSE
7. Accepted Scientific Methods Exist?			If NO = Stop NSE
8. Performance Data Available?	X		If NO = Request Data
9. Data Demonstrate Equivalence?	X		Final Decision: SE

Note: See

http://erom.fda.gov/eRoomReg/Files/CDRH3/CDRHPremarketNotification510kProgram/0_4148/FLOWCART%20DECISION%20TREE%20.DOC for Flowchart to assist in decision-making process. Please complete the following table and answer the corresponding questions. "Yes" responses to questions 2, 4, 6, and 9, and every "no" response requires an explanation.

1. Explain how the new indication differs from the predicate device's indication:
2. Explain why there is or is not a new effect or safety or effectiveness issue:
3. Describe the new technological characteristics:
4. Explain how new characteristics could or could not affect safety or effectiveness:
5. Explain how descriptive characteristics are not precise enough:
Modification to the indication for use and product code required justification and microbial ingress testing for the entire system.
6. Explain new types of safety or effectiveness question(s) raised or why the question(s) are not new:

- 7. Explain why existing scientific methods can not be used:
- 8. Explain what performance data is needed:
Review of the microbial ingress testing.
- 9. Explain how the performance data demonstrates that the device is or is not substantially equivalent:
The microbial ingress testing was needed to support the modifications to the Indications for use and for reclassification to product code, OBN.

XV. Deficiencies

The 510(K) Summary needed modification. The sponsor had listed all the previous predicate devices instead of the last predicate, which is identical device. The sponsor agreed to modify the Summary by listing the identical predicate device.

XVI. Contact History

December 12, 2012, Clarification to the predicates in the submission.
December 13, 2012, Received updated 510(k) Summary

XVII. Recommendation

Regulation Number: 21 CFR 880.5440
Regulation Name: Intravascular Administration Set
Regulatory Class: Class II
Product Code: ONB

Digital Signature Concurrence Table	
Reviewer Sign-Off	<p>Mary E. Brooks</p> <p><small>Digitally signed by Mary E. Brooks DN: c=US, o=U.S. Government, ou=HHS, ou=FDA, ou=People, cn=Mary E. Brooks, 0.9.2342.19200300.100.1.1=1300372349 Date: 2013.01.07 17:13:07 -05'00'</small></p>
Branch Chief Sign-Off	<p>Digitally signed by Richard C. Chapman Date: 2013.01.07 18:21:54 -05'00'</p>
Division Sign-Off	<p>Anthony D. Watson</p> <p><small>Anthony D. Watson 2013.01.08 14:24:31 -05'00'</small></p>

Form Last Updated: Margaret McCabe Janicki 9/20/2012 – added Digital Signature concurrence table

Brooks, Mary E

From: Panguluri, Ramesh K
Sent: Friday, January 04, 2013 10:32 AM
To: Brooks, Mary E
Cc: Chapman, Richard
Subject: RE: Consult for K123213 PhaSeal Closed System

Dear Mary,

I have reviewed the Microbial ingress testing on the subject PhaSeal System and the testing is found to be adequate. In the predicate device they had only provided microbial ingress testing for the junction between the syringe and the injector. During the predicate review I asked them to provide microbial ingress testing for three junctions (vial/connector; connector/injector; and syringe/injector) and the testing was found to be adequate. Since the subject device is the same as the predicate I do not have any other concerns with the testing.

Thanks

Kapil

From: Brooks, Mary E
Sent: Thursday, January 03, 2013 7:55 PM
To: Panguluri, Ramesh K
Cc: Chapman, Richard
Subject: FW: Consult for K123213 PhaSeal Closed System

Hey Kapil,

Can you provide a quick turn around on this consult? It appears the testing was appropriate. I'm okay with an email response if that works for you. I'm on day 80 and ready to SE the submission but waiting your INCB's response.

Many thanks,
Mary

Mary E. Brooks RN, BSN, MS
Lieutenant Commander, United States Public Health Service
Nurse Consultant

Division of Anesthesiology, General Hospital,
Infection Control, & Dental Devices
Office of Device Evaluation
Center for Devices & Radiological Health
US Food & Drug Administration
WO66-G456
10903 New Hampshire Avenue
Silver Spring, MD, 20993-0002
(301) 796-6078
(301) 847-8109 (fax)
Mary.brooks@fda.hhs.gov

From: Brooks, Mary E
Sent: Wednesday, January 02, 2013 6:13 PM
To: Harry, Anya

Subject: FW: Consult for K123213 PhaSeal Closed System

Hey Anya,

Do you think you'll be able to complete this consult soon? I'm on day 79 and need to wrap it up...I'm happy with an email response if your bogged down.

Just let me know.

Thanks, M

From: Brooks, Mary E

Sent: Wednesday, December 12, 2012 6:52 PM

To: Claverie, Elizabeth F; Harry, Anya

Subject: Consult for K123213 PhaSeal Closed System

Hey Anya,

You just reviewed and approved microbial ingress testing K120384. The device is identical to the predicate, they are requesting to change the procode to ONB. They have provided additional microbial ingress testing to support their claim for connector. The full protocol starts on page 147 of the attached file.

<< File: PhaSeal 510(k) 12 Oct 2012.pdf >>

<< File: P21 4 IFU.pdf >>

<< File: C35 4 IFU.pdf >> << File: N35 4 IFU.pdf >>

<< File: C35 4 IFU.pdf >>

The intention of this submission is to modify the FDA-assigned product code of the previously cleared PhaSeal Closed System Transfer Device from LHI to product code ONB.

Current Product Code	LHI	Set, I.V. Fluid Transfer
Proposed Product Code	ONB	Closed Antineoplastic and Hazardous Drug Reconstitution and Transfer System

The ONB product code is defined by CDRH as follows:

Device: Closed Antineoplastic and Hazardous Drug Reconstitution and Transfer System

Regulation Description: Intravascular Administration Set

Definition: Reconstitute and transfer antineoplastic and other hazardous drugs in healthcare setting indicated to reduce exposure of healthcare personnel to chemotherapy agents in healthcare setting.

Physical State: Vial adaptor with piercing spikes, contain Luer-Lock connector fitted with elastomeric membrane to provide a sealed connection between syringe, I.V. administration set or transfer bag. May contain side pressure-equalizing protector unit. May contain needle-free access port.

Technical Method: Placed over vial or container containing the chemotherapy drug. In order to meet this definition, the wording of the indication for use statement has been modified to better reflect the definition provided by the ONB product code. The additional text is **bolded** in the fully transposed

indications for use statement below. All other aspects of the indications for use statement are unchanged from the most recently cleared application K120384.

The PhaSeal system is an **airtight and leakproof** closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal **system** also prevents microbial ingress.

BD has included the additional descriptors “airtight” and “leakproof” to align with the definition of Closed System Transfer Devices provided by the National Institute for Occupational Safety and Health (NIOSH) and the International Society of Oncology Pharmacy Practitioners (ISOPP). These characteristics of Closed System Transfer Devices are essential requirements to reduce health care workers from exposure to hazardous drugs. In addition, NIOSH also cites the need to prevent contaminants from entering the closed system during transfer. As such, in our most recent clearance, we added the following statement to the Indications for Use: “The PhaSeal protector also prevents microbial ingress.” At the time of submission of K120384, we did not have microbial ingress data for the connector portion of the system. The current submission contains the microbial ingress data on the connector. As such, we propose to extend the microbial ingress claim to the entire system; not just the PhaSeal Protector.

Mary E. Brooks RN, BSN, MS
Lieutenant Commander, United States Public Health Service
Nurse Consultant

Division of Anesthesiology, General Hospital,
Infection Control, & Dental Devices
Office of Device Evaluation
Center for Devices & Radiological Health
US Food & Drug Administration
WO66-G456
10903 New Hampshire Avenue
Silver Spring, MD, 20993-0002
(301) 796-6078
(301) 847-8109 (fax)
Mary.brooks@fda.hhs.gov

Brooks, Mary E

From: John W Roberts [john_w_roberts@bd.com]
Sent: Friday, December 14, 2012 4:54 PM
To: Brooks, Mary E
Subject: FW: K123213 - BD PhaSeal Closed System Transfer Device
Attachments: Summary of Safety and Effectiveness - Revised.pdf

Good Afternoon Ms. Brooks,

My apologies, I sent this along yesterday, but mistyped the email address.

Thanks,
John



John W Roberts
Regulatory Affairs

BD Medical – Medical Surgical Systems

1 Becton Drive, Franklin Lakes, NJ 07417 USA

Office: 201-847-5473 Mobile: 973-570-4645

Email: John_W_Roberts@bd.com Website: www.BD.com

Please consider the environment before printing this email.

From: John W Roberts
Sent: Thursday, December 13, 2012 4:20 PM
To: 'mary.brooks@hhs.fda.gov'
Subject: K123213 - BD PhaSeal Closed System Transfer Device

Good Afternoon Ms. Brooks,

As discussed this morning, I have attached the revised Summary of Safety and Effectiveness which incorporates the revised predicate identification as well as the inclusion of a summary conclusion statement. If there are any additional questions or concerns where I can provide assistance, please let me know.

Thanks,
John



John W Roberts
Regulatory Affairs

BD Medical – Medical Surgical Systems

1 Becton Drive, Franklin Lakes, NJ 07417 USA

Office: 201-847-5473 Mobile: 973-570-4645

Email: John_W_Roberts@bd.com Website: www.BD.com

 Please consider the environment before printing this email.

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***** Corporate
Headquarters Mailing Address: BD (Becton, Dickinson and Company) 1 Becton Drive Franklin Lakes, NJ 07417 U.S.A.

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Acceptance Checklist
for Traditional 510(k)s

(should be completed within 15 days of DCC receipt)

The following information is not intended to serve as a comprehensive review.

510(k) Number: K123213 **Date Received:** Oct 31, 2012

Lead Reviewer Name: Mary Brooks **Branch:** GHDB **Division:** DAGRID **Office:** ODE

Preliminary Questions		
Answers in the shaded blocks indicate consultation with Center advisor is needed.	Yes	No
<p>1. Is the product a device (per section 201(h) of the FD&C Act) or a combination product (per 21 CFR 3.2(e)) with a device constituent part subject to review in a 510(k)?</p> <p>If it appears not to be a device (per section 201(h) of the FD&C Act) or such a combination product, or you are unsure, consult with the CDRH Jurisdictional Officer or the CBER Office Jurisdiction Liaison to determine the appropriate action, and inform division management. <i>Provide a summary of the Jurisdictional Officer's/Liaison's determination.</i> If the product does not appear to be a device or such a combination product, mark "No."</p>	X	
Comments:		
<p>2. Is the application with the appropriate Center?</p> <p>If the product is a device or a combination product with a device constituent part, is it subject to review by the Center in which the submission was received? If you believe the application is not with the appropriate Center or you are unsure, consult with the CDRH Jurisdictional Officer or CBER Office Jurisdiction Liaison to determine the appropriate action and inform your division management. <i>Provide a summary of the Jurisdictional Officer's/Liaison's determination.</i> If application should not be reviewed by your Center mark "No."</p>	X	
Comments:		
<p>3. Is a 510(k) the appropriate regulatory submission?</p> <p>If a 510(k) does not appear to be appropriate (e.g., Class III type and PMA required, or Class I or II type and 510(k)-exempt), you should consult with the CDRH 510(k) Program Director or appropriate CBER staff during the acceptance review. If 510(k) is not the appropriate regulatory submission, mark "No."</p>	X	

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Comments:		
<p>4. Is there a pending PMA for the same device with the same indications for use?</p> <p>If there is a pending PMA for the same device, consult division management and the CDRH 510(k) Program Director or appropriate CBER staff to determine the appropriate action.</p>		X
Comments:		
<p>5. If clinical studies have been submitted, is the submitter the subject of an Application Integrity Policy (AIP)?</p> <p>If yes, consult with the CDRH Office of Compliance/Division of Bioresearch Monitoring (OC/DBM - BIMO) or CBER Office of Compliance and Biologics Quality/Division of Inspections and Surveillance/Bioresearch Monitoring Branch (OCBQ/DIS/BMB) to determine the appropriate action. Check on web at http://www.fda.gov/ICECI/EnforcementActions/ApplicationIntegrityPolicy/ucm134453.htm.</p>		X

If the answer to 1 or 2 appears to be "No," then stop review of the 510(k) and issue the "Original Jurisdictional Product" letter. If the answer to 3 is no, the lead reviewer should consult division management and other Center resources to determine the appropriate action.

If the answer to 4 is "Yes," then stop review of the 510(k), contact the CDRH 510(k) Staff and PMA Staff, or appropriate CBER staff.

If the answer to 5 is "Yes," then contact CDRH/OC/DBM – BIMO or CBER/OCBQ/DIS/BMB, provide a summary of the discussion with the BIMO Staff, and indicate BIMO's recommendation/action.

<u>Organizational Elements</u>		
<i>Failure to include these items alone generally should not result in an RTA designation</i>		
	Yes	No
a. Submission contains Table of Contents	X	
b. Each section is labeled (e.g., headings or tabs designating Device Description section, Labeling section, etc.)	X	
c. All pages of the submission are numbered <i>All pages should be numbered in such a manner that information can be referenced by page number. This may be done either by consecutively numbering the entire submission, or numbering the pages within a section (e.g., 12-1, 12-2...).</i>	X	
d. Type of 510(k) is identified– traditional, abbreviated, or special <i>If type of 510(k) is not designated, review as a traditional</i>	X	
Comments:		

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<u>Elements of a Complete Submission (RTA Items)</u> <u>(21 CFR 807.87 unless otherwise indicated)</u>				
Submission should be designated RTA if not addressed				
Check "Yes" if item is present, "N/A" if it is not needed and "No" if it is not included but needed.				
	<ul style="list-style-type: none"> • Any "No" answer will result in a "Refuse to Accept" decision. • Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 	Yes	N/A	No
A.	Administrative			
1.	All content used to support the submission is written in English (including translations of test reports, literature articles, etc.)	X		<input type="checkbox"/>
	Comments:			
2.	510(k) cover letter that identifies:	X		<input type="checkbox"/>
	a. Device trade name or proprietary name	X		<input type="checkbox"/>
	b. Device common name	X		<input type="checkbox"/>
	c. Device class and panel	X		<input type="checkbox"/>
	Comments:			
3.	Submission contains Indications for Use Statement with Rx and/or OTC designated (see also 801.109) <i>Submitter should use format appropriate for the reviewing Center/Office (CDRH/ODE, CDRH/OIVD, CBER/OBRR, CBER/OCTGT). If not provided in correct format, request the correct format during substantive review.</i>	X		<input type="checkbox"/>
	Comments: RX device			
4.	Submission contains 510(k) Summary or 510(k) Statement <i>Either a) or b) must be answered. "Yes" to be considered complete. Identify any missing element(s) as Comments.</i>	X		<input type="checkbox"/>
	a. Summary contains all elements per 21 CFR 807.92 <i>See also <u>510(k) Summary Checklist</u></i>	X	<input type="checkbox"/>	<input type="checkbox"/>
	b. Statement contains all elements per 21 CFR 807.93	<input type="checkbox"/>	X	<input type="checkbox"/>
	Comments:			

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Elements of a Complete Submission (RTA Items)
(21 CFR 807.87 unless otherwise indicated)

Submission should be designated RTA if not addressed

Check "Yes" if item is present, "N/A" if it is not needed and "No" if it is not included but needed.

		Yes	N/A	No	
	<ul style="list-style-type: none"> Any "No" answer will result in a "Refuse to Accept" decision. Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 				
5.	Submission contains Truthful and Accuracy Statement per 21 CFR 807.87(k) <i>See recommended format</i>	X		<input type="checkbox"/>	
	Comments:				
6.	Submission contains Class III Summary and Certification <i>See recommended content</i> <i>Form should be signed by a responsible person of the firm, not a consultant. CDRH is not currently able to accept a digital signature. "N/A" only if submission is not a Class III 510(k).</i>	X	<input type="checkbox"/>	<input type="checkbox"/>	
	Comments:				
7.	If submission relies upon a national or international standard as part of demonstration of substantial equivalence, submission contains Standards Data Report for 510(k)s (FDA Form 3654) or includes detailed information about how and the extent to which the standard has been followed <i>There should be a completed form for each referenced national or international standard.</i> <i>"N/A" only if submission does not reference any standards.</i>	<input type="checkbox"/>	X	<input type="checkbox"/>	
	Comments:				
8.	Does submission contain clinical data? <i>Select "N/A" for this item and 8.a. and 8.b. if the submission does not contain clinical data. If submission does contain clinical data, parts a. and b. must be answered "yes" for the 510(k) to be complete.</i>	<input type="checkbox"/>	x		
	a.	Submission includes Financial Certification/Disclosure Statement	<input type="checkbox"/>	X	<input type="checkbox"/>

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<u>Elements of a Complete Submission (RTA Items)</u> <u>(21 CFR 807.87 unless otherwise indicated)</u>					
Submission should be designated RTA if not addressed					
Check "Yes" if item is present, "N/A" if it is not needed and "No" if it is not included but needed.					
		<ul style="list-style-type: none"> Any "No" answer will result in a "Refuse to Accept" decision. Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 	Yes	N/A	No
	b.	Submission includes Certification of Compliance with requirements of ClinicalTrials.gov Data Bank (<u>FDA Form 3674</u>) (42 U.S.C. 282(j)(5)(B))	<input type="checkbox"/>	x	<input type="checkbox"/>
		Comments:			
9.		If this is a bundled submission, the submission has been appropriately bundled [i.e., the correct user fee(s) have been paid for the devices/indications (section 738 of the FD&C Act)] <u>See Guidance for Industry and FDA Staff: Bundling Multiple Devices or Multiple Indications in a Single Submission.</u> <i>"N/A" if not a bundled submission</i>	<input type="checkbox"/>	X	<input type="checkbox"/>
		Comments:			
10.		The submission identifies prior submissions for the same device for which FDA provided feedback related to the data or information needed to support substantial equivalence (e.g., submission numbers for Pre-Submission, IDE, prior not substantially equivalent (NSE) determination, prior 510(k) that was deleted or withdrawn) or states that there were no prior submissions.	<input type="checkbox"/>		X
	a.	If there were prior submissions: within current submission, the sponsor has identified where in the current submission any issues related to substantial equivalence outlined in prior communications are addressed.	<input type="checkbox"/>	X	<input type="checkbox"/>
		Comments:			
B.	Device Description				
11.		If there is a device-specific guidance document or special controls applicable to this submission, documentation has been provided to establish that the submitter has followed the recommendations in the applicable device-specific guidance document or special controls		X	<input type="checkbox"/>

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<u>Elements of a Complete Submission (RTA Items)</u> <u>(21 CFR 807.87 unless otherwise indicated)</u>				
Submission should be designated RTA if not addressed				
Check "Yes" if item is present, "N/A" if it is not needed and "No" if it is not included but needed.				
	<ul style="list-style-type: none"> Any "No" answer will result in a "Refuse to Accept" decision. Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 	Yes	N/A	No
	regarding the device description or otherwise met the applicable statutory or regulatory criteria through an alternative approach. <i>Select "No" if the submission does not include a rationale for any omitted information or any alternative approaches.</i> <i>Select "N/A" if there is no device-specific guidance document</i>			
	Comments:			
	12. All descriptive information is present and consistent within the submission (e.g., the device description section is consistent with the device description in the labeling), including:			
	a. A description of the principle of operation and mechanism of action for achieving the intended therapeutic/diagnostic effect.	X		<input type="checkbox"/>
	b. A description of all conditions of use such as surgical technique for implants; anatomical location of use; user interface; how the device interacts with other devices; and/or how the device interacts with the patient.	X		<input type="checkbox"/>
	c. A list and description of each model for which clearance is requested. <i>Select "N/A" if there is only one model.</i>		X	<input type="checkbox"/>
	Comments: The PhaSeal system is an airtight and leakproof closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside of the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal System also prevents microbial ingress			
	13. Where applicable, submission contains engineering drawing(s), schematics, illustrations and/or figures of the device that are clear and legible, and include dimensions	X	<input type="checkbox"/>	<input type="checkbox"/>
	a. If engineering drawings, schematics, illustrations and/or figures are provided, one is provided for each model to be marketed	X	<input type="checkbox"/>	<input type="checkbox"/>

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Check "Yes" if item is present, "N/A" if it is not needed and "No" if it is not included but needed.

			Yes	N/A	No
	<ul style="list-style-type: none"> Any "No" answer will result in a "Refuse to Accept" decision. Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 				
	Comments:				
14.	If device is intended to be marketed with multiple components, accessories, and/or as part of a system, <i>Select "N/A" if the device is not intended to be marketed with multiple components, accessories, and/or as part of a system.</i>		X		
	a. A description (as detailed in item 12.a. and b. and 13 above) is provided for each component or accessory.		X		<input type="checkbox"/>
	b. A 510(k) number is provided for each component or accessory that received a prior 510(k) clearance. <i>Select "N/A" if the submission states that the component(s)/ accessory(ies) do not have a prior 510(k) clearance.</i>			X	<input type="checkbox"/>
	Comments:				
C.	Substantial Equivalence Discussion				
15.	Submitter has identified a predicate(s) device		X		<input type="checkbox"/>
	a. Predicate's 510(k) number, trade name, and model number (if applicable) provided		X		<input type="checkbox"/>
	b. The identified predicate(s) is consistent throughout the submission (i.e., the predicate(s) identified in the Substantial Equivalence section is the same as that listed in the 510(k) Summary (if applicable) and that used in comparative performance testing		X		<input type="checkbox"/>
	Comments:				
16.	Submission includes a comparison of the following for the predicate(s) and subject device				
	a. Indications for use		X		<input type="checkbox"/>
	b. Technology, including features, materials, and principles of		X		<input type="checkbox"/>

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Check “Yes” if item is present, “N/A” if it is not needed and “No” if it is not included but needed.

			Yes	N/A	No
	<ul style="list-style-type: none"> Any “No” answer will result in a “Refuse to Accept” decision. Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 				
		operation			
	Comments:				
17.	<p>Submission includes an analysis of why any differences between the subject device and predicate(s) do not render the device NSE (e.g., do not constitute a new intended use, affect safety or effectiveness, or raise different questions of safety and effectiveness) (see section 513(i)(1)(A) of the FD&C Act)</p> <p><i>If there is no difference between the subject and predicate(s) with respect to indications for use or technology, this should be explicitly stated, in which case “N/A” should be selected. Select “No” only if the submission does not include an analysis of differences as described above or a statement that there are no differences. Note that due to potential differences in manufacturing that may not be known to the submitter, no identified differences does not necessarily mean that no performance testing is needed.</i></p>		X	<input type="checkbox"/>	<input type="checkbox"/>
	Comments:				
D.	Proposed Labeling (see also 21 CFR part 801)				
18.	Submission includes proposed labels, labeling (e.g., instructions for use, package insert, operator’s manual), and advertisements that describe the device, its intended use, and the directions for use				
	a.	Indications for use stated in labeling (21 CFR 801.61) and identical to IFU form and 510(k) Summary (if applicable)	X		<input type="checkbox"/>
	b.	Directions for use included (including relevant hazards, warnings, precautions, contraindications), including directions for layperson (see 21 CFR 801.5) unless submission states that device qualifies for exemption per 21 CFR 801 Subpart D.	X		<input type="checkbox"/>

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Check “Yes” if item is present, “N/A” if it is not needed and “No” if it is not included but needed.				
	<ul style="list-style-type: none"> • Any “No” answer will result in a “Refuse to Accept” decision. • Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 	Yes	N/A	No
	Comments:			
19.	If indicated for prescription use, labeling includes the prescription use statement (see 21 CFR 801.109(b)(1)) or “Rx only” symbol [See also <u>Alternative to Certain Prescription Device Labeling Requirements</u>] <i>Select “N/A” if not indicated for prescription use.</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
	Comments: RX device			
20.	General labeling provisions			
	a. Labeling includes name and place of business of the manufacturer, packer, or distributor (21 CFR 801.1)	X		<input type="checkbox"/>
	b. Labeling includes device common or usual name (21 CFR 801.61)	X		<input type="checkbox"/>
	Comments: Identical labeling			
21.	If there is a device-specific guidance, special controls, or regulation, the provided labeling establishes that the submitter has followed the recommendations in the applicable guidance document, special controls, or regulation, or otherwise has met the applicable statutory or regulatory criteria through an alternative approach. <i>Select “N/A” if there is no device-specific guidance or regulation.</i>	<input type="checkbox"/>	X	<input type="checkbox"/>
	Comments:			
22.	If the device is an in vitro diagnostic device, provided labeling includes all applicable information required per 21 CFR 809.10. <i>Select “N/A” if not an in vitro diagnostic device.</i>	<input type="checkbox"/>	X	<input type="checkbox"/>
E.	Performance Data – General			
	Submission: <i>(one of the below must be checked)</i> <input type="checkbox"/> does <input type="checkbox"/> does not			

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Check "Yes" if item is present, "N/A" if it is not needed and "No" if it is not included but needed.

		Yes	N/A	No
	<ul style="list-style-type: none"> Any "No" answer will result in a "Refuse to Accept" decision. Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 			
	contain performance data. <i>If "does not" is selected, the performance data-related criteria below are omitted from the checklist.</i>			
	Comments:			
23.	Full test report is provided for each completed test to explain how the data generated from the test supports a finding of substantial equivalence. (A full test report includes: objective of the test, description of the test methods and procedures, study endpoint(s), pre-defined pass/fail criteria, results summary, and conclusions.)	X		<input type="checkbox"/>
	Comments:			
24.	Submission includes document to establish that the submitter has followed the recommendations for performance data outlined in the applicable device-specific guidance document or special controls, or otherwise met the applicable statutory or regulatory criteria through an alternative approach. <i>Select "N/A" if there is no device-specific guidance document.</i>	<input type="checkbox"/>	X	<input type="checkbox"/>
	Comments:			
25.	If literature was used as performance data, submission includes reprints or a summary of each article, and a discussion as to how each article is applicable to support the substantial equivalence of the subject device to the predicate.	<input type="checkbox"/>	X	<input type="checkbox"/>
	Comments: This submission is identical to their own predicate. The submission was for reclassification of the product code and minor modifications to the Indications for Use. The identical articles were reviewed in the predicate device.			

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Check "Yes" if item is present, "N/A" if it is not needed and "No" if it is not included but needed.

		Yes	N/A	No
<ul style="list-style-type: none"> Any "No" answer will result in a "Refuse to Accept" decision. Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 				
26.	If an animal study was conducted, <i>Select "N/A" if no animal study was conducted.</i>		X	
a.	Submission includes a study protocol and final study report to explain how the data generated from the study supports a finding of substantial equivalence. (A final study report includes a contributing scientist report for each preclinical endpoint of evaluation within the protocol, such as performance/handling, in life, imaging, pathology, etc.)	<input type="checkbox"/>		<input type="checkbox"/>
b.	Submission contains a statement that the study was conducted in compliance with applicable requirements in the GLP regulation (21 CFR Part 58), or, if the study was not conducted in compliance with the GLP regulation, the submission explains why the noncompliance would not impact the validity of the study data provided to support a substantial equivalence determination.	<input type="checkbox"/>		<input type="checkbox"/>
Comments:				
F.	Sterilization			
Submission states that the device and/or accessories are: <i>(one of the below must be checked)</i> X sterile <input type="checkbox"/> non-sterile but sterilized by the end user <input type="checkbox"/> non-sterile when used This information will determine whether and what type of additional information may be necessary for a substantial equivalence determination. <i>If "non-sterile when used" is selected, the sterility-related criteria below are omitted from the checklist.</i> <i>If information regarding the sterility status of the device is not provided, select "No."</i>				<input type="checkbox"/>
Comments: No modification in materials or sterilization process. The predicate and subject devices				

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Check "Yes" if item is present, "N/A" if it is not needed and "No" if it is not included but needed.

		Yes	N/A	No
<ul style="list-style-type: none"> • Any "No" answer will result in a "Refuse to Accept" decision. • Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 				
are identical.				
27.	Assessment of the need for sterilization information			
a.	Identification of device, and/or accessories, and/or components that are provided sterile.	<input type="checkbox"/>	X	<input type="checkbox"/>
b.	Identification of device, and/or accessories, and/or components that are end user sterilized	<input type="checkbox"/>	X	<input type="checkbox"/>
c.	Identification of device, and/or accessories, and/or components that are reusable and cleaning/disinfection instructions are provided.	<input type="checkbox"/>	X	<input type="checkbox"/>
Comments:				
28.	If the device, and/or accessory, and/or a component is provided sterile: <i>Select "N/A" if no part of the device, accessories, or components is provided sterile, otherwise complete a-f below.</i>		X	
a.	Sterilization method is stated for each component (including parameters such as dry time for steam sterilization, radiation dose, etc.)	<input type="checkbox"/>		<input type="checkbox"/>
b.	A description of method to validate the sterilization cycle (e.g., half-cycle method and full citation of FDA-recognized standard, including date) is provided	<input type="checkbox"/>		<input type="checkbox"/>
c.	For devices sterilized using chemical sterilants such as ethylene oxide (EO) and hydrogen peroxide, submission states maximum levels of sterilant residuals remaining on the device and sterilant residual limits. <i>Select "N/A" if not sterilized using chemical sterilants.</i>	<input type="checkbox"/>	X	<input type="checkbox"/>
d.	Submission includes description of packaging and packaging	<input type="checkbox"/>		<input type="checkbox"/>

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Check “Yes” if item is present, “N/A” if it is not needed and “No” if it is not included but needed.

			Yes	N/A	No
		<ul style="list-style-type: none"> Any “No” answer will result in a “Refuse to Accept” decision. Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 			
		contents (e.g., if multiple devices are included within the same package)			
	e.	Sterility Assurance Level (SAL) stated	<input type="checkbox"/>		<input type="checkbox"/>
	f.	If device is blood-contacting, a permanent implant, or contacts cerebrospinal fluid, or device is labeled “non-pyrogenic,” submission contains a description of the endotoxin method used to make a determination (e.g., LAL), endotoxin release specification (e.g., 20 EU/device), and a rationale for the specification. <i>Select “N/A” if device is not blood-contacting, not a permanent implant, does not contact cerebrospinal fluid, and is not labeled “non-pyrogenic.” Select “N/A” if a rationale for omission is provided.</i>	<input type="checkbox"/>	X	<input type="checkbox"/>
		Comments:			
	29.	All sterility information provided as recommended in the following guidance documents or special controls, or information provided indicating the submitter has otherwise met the applicable statutory or regulatory criteria through an alternative approach: <i>Either “a” or “b” must be answered “Yes” to be considered complete.</i>			
	a.	Device-specific guidance document or special controls <i>Select “N/A” if no device-specific guidance document.</i>	<input type="checkbox"/>	X	<input type="checkbox"/>
	b.	Cross-cutting guidance document (for more information see <u>“Submission and Review of Sterility Information in Premarket Notification (510(k)) Submissions for Devices Labeled as Sterile”</u>) <i>Select “N/A” if device-specific guidance followed instead.</i>	<input type="checkbox"/>	X	<input type="checkbox"/>
		Comments:			
G.	Shelf Life				

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Check "Yes" if item is present, "N/A" if it is not needed and "No" if it is not included but needed.

		Yes	N/A	No
	<ul style="list-style-type: none"> • Any "No" answer will result in a "Refuse to Accept" decision. • Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 			
	30. If the device is provided sterile or the device is provided non-sterile and storage conditions (i.e., aging) could impact device safety or effectiveness, address the following: <i>Select "N/A" if the device is not provided sterile and the submitter states that storage conditions could not affect device safety or effectiveness.</i>		X	
	a. Proposed shelf life/expiry date stated	<input type="checkbox"/>		<input type="checkbox"/>
	b. Submission includes description of shelf life validation method(s) used to ensure device performance and sterility, as applicable, remain substantially equivalent to that of the predicate device throughout the stated shelf life.	<input type="checkbox"/>		<input type="checkbox"/>
	Comments:			
H.	Biocompatibility			
	Submission states that there: <i>(one of the below must be checked)</i> <input type="checkbox"/> are <input checked="" type="checkbox"/> are not direct or indirect (e.g., through fluid infusion) patient-contacting components. This information will determine whether and what type of additional information may be necessary for a substantial equivalence determination. <i>If "are not" is selected, the biocompatibility-related criteria below are omitted from the checklist. If information regarding whether the device is patient-contacting is not provided, select "No."</i>			<input type="checkbox"/>
	Comments: No modification in materials or sterilization process. The predicate and subject devices are identical.			
	31. Submission includes list of patient-contacting device components and associated materials of construction, including identification of color	<input type="checkbox"/>		<input type="checkbox"/>

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Check "Yes" if item is present, "N/A" if it is not needed and "No" if it is not included but needed.				
	<ul style="list-style-type: none"> • Any "No" answer will result in a "Refuse to Accept" decision. • Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 	Yes	N/A	No
	additives, if present			
	Comments:			
	32. Submission identifies contact classification (e.g., surface-contacting, less than 24 hour duration)	<input type="checkbox"/>		<input type="checkbox"/>
	Comments:			
	33. Biocompatibility assessment of patient-contacting components Submission includes: Test protocol (including identification and description of test article), methods, pass/fail criteria, and results provided for each completed test, OR a statement that biocompatibility testing is not needed with a rationale (e.g., materials and manufacturing/processing are identical to the predicate).	<input type="checkbox"/>		<input type="checkbox"/>
I.	Software			
	Submission states that the device: <i>(one of the below must be checked)</i> <input type="checkbox"/> does <input checked="" type="checkbox"/> does not contain software. This information will determine whether and what type of additional information may be necessary for a substantial equivalence determination. <i>If "does not" is selected, the software-related criterion is omitted from the checklist. If information regarding whether the device contains software is not provided, select "No."</i>			<input type="checkbox"/>
	Comments:			
	34. All appropriate categories of software verification and validation	<input type="checkbox"/>		<input type="checkbox"/>

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	<ul style="list-style-type: none"> Any "No" answer will result in a "Refuse to Accept" decision. Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 	Yes	N/A	No
	documentation provided based on stated level of concern, as described in <u>Guidance for the Content of Premarket Submissions for Software Contained in Medical Devices</u> , or the submitter has provided documentation that it has otherwise met the applicable statutory or regulatory criteria through an alternative approach.			
	Comments:			
J.	EMC and Electrical Safety			
	<p>Submission states that the device: <i>(one of the below must be checked)</i></p> <p><input type="checkbox"/> does <input checked="" type="checkbox"/> does not require EMC and Electrical Safety evaluation.</p> <p>This information will determine whether and what type of additional information may be necessary for a substantial equivalence determination.</p> <p><i>If "does not" is selected, the EMC-related and Electrical Safety-related criteria below are omitted from the checklist. If information regarding whether the device requires EMC and Electrical Safety evaluation is not provided, select "No."</i></p>			
	Comments:			
35.	Submission includes evaluation of electrical safety per IEC 60601-1 or equivalent FDA-recognized standard and if applicable, the device-specific standard OR submission includes electrical safety evaluation using methods or standards that are not FDA-recognized and information indicating that these methods/standards otherwise meet applicable statutory and regulatory requirements.	<input type="checkbox"/>		<input type="checkbox"/>
	Comments:			

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Check “Yes” if item is present, “N/A” if it is not needed and “No” if it is not included but needed.

	<ul style="list-style-type: none"> Any “No” answer will result in a “Refuse to Accept” decision. Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 	Yes	N/A	No
36.	Submission includes evaluation of electromagnetic compatibility per IEC 60601-1-2 or equivalent FDA-recognized standard and if applicable, the device-specific standard OR submission includes electromagnetic compatibility evaluation using methods or standards that are not FDA-recognized and information indicating that these methods/standards otherwise meet applicable statutory and regulatory requirements.	<input type="checkbox"/>		<input type="checkbox"/>
	Comments:			
K.	Performance Characteristics – In Vitro Diagnostic Devices Only (see also 21 CFR 809.10(b)(12))			
	Submission indicates that device: <i>(one of the below must be checked)</i> <input type="checkbox"/> is X is not an in vitro diagnostic device (IVD). <i>If “is not” is selected, the performance data-related criteria below are omitted from the checklist.</i>			
	Comments:			
37.	Submission includes the following analytical studies, including associated protocols and line data:			
	a. Precision/reproducibility (at least 3 sites generally necessary)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Accuracy (includes linearity, assay cut-off, method comparison or comparison to clinical outcome, matrix comparison, reference range, and stability protocol and acceptance criteria)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. Sensitivity (detection limits (LoB, LoD, and LoQ))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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		Yes	N/A	No
	<ul style="list-style-type: none"> Any "No" answer will result in a "Refuse to Accept" decision. Each element on the checklist should be addressed within the submission. The submitter may provide a rationale for omission for any criteria that are deemed not applicable. If a rationale is provided, the criterion is considered present (Yes). An assessment of the rationale will be considered during the review of the submission. 			
	d. Analytical specificity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Comments:			

Decision: Accept ___ Refuse to Accept ___

If Accept, notify applicant; if Refuse to Accept, notify applicant in writing and include a copy of this checklist.

Digital Signature Concurrence Table	
Reviewer Sign-Off	
Branch Chief Sign-Off	
Division Sign-Off	



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

U.S. Food and Drug Administration
 Center for Devices and Radiological Health
 Document Control Center WO66-G609
 10903 New Hampshire Avenue
 Silver Spring, MD 20993-0002

October 16, 2012

BECTON DICKINSON & CO.
 1 BECTON DR.
 MC237
 FRANKLIN LAKES, NEW JERSEY 07417-1885
 ATTN: JOHN ROBERTS

510k Number: K123213

Received: 10/15/2012

Product: BD PHASEAL CLOSED SYSTEM TRANS

The Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH), has received the Premarket Notification, (510(k)), you submitted in accordance with Section 510(k) of the Federal Food, Drug, and Cosmetic Act (Act) for the above referenced product and for the above referenced 510(k) submitter. Please note, if the 510(k) submitter is incorrect, please notify the 510(k) Staff immediately. We have assigned your submission a unique 510(k) number that is cited above. Please refer prominently to this 510(k) number in all future correspondence that relates to this submission. We will notify you when the processing of your 510(k) has been completed or if any additional information is required. **YOU MAY NOT PLACE THIS DEVICE INTO COMMERCIAL DISTRIBUTION UNTIL YOU RECEIVE A LETTER FROM FDA ALLOWING YOU TO DO SO.**

Please remember that all correspondence concerning your submission **MUST** be sent to the Document Mail Center (DMC) at the above letterhead address. Correspondence sent to any address other than the one above will not be considered as part of your official 510(k) submission.

On September 27, 2007, the President signed an act reauthorizing medical device user fees for fiscal years 2008 - 2012. The legislation - the Medical Device User Fee Amendments of 2007 is part of a larger bill, the Food and Drug Amendments Act of 2007. Please visit our website at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Overview/MedicalDeviceUserFeeandModernizationActMDUFMA/default.htm> for more information regarding fees and FDA review goals. In addition, effective January 2, 2008, any firm that chooses to use a standard in the review of ANY new 510(k) needs to fill out the new standards form (Form 3654) and submit it with their 510(k). The form may be found at <http://www.fda.gov/AboutFDA/ReportsManualsForms/Forms/default.htm>.

We remind you that Title VIII of the Food and Drug Administration Amendments Act of 2007 (FDAAA) amended the PHS Act by adding new section 402(j) (42 U.S.C. § 282(j)), which expanded the current database known as ClinicalTrials.gov to include mandatory registration and reporting of results for applicable clinical trials of human drugs (including biological products) and devices. Section 402(j) requires that a certification form <http://www.fda.gov/AboutFDA/ReportsManualsForms/Forms/default.htm> accompany 510(k)/HDE/PMA submissions. The agency has issued a draft guidance titled: "Certifications To Accompany Drug, Biological

Product, and Device Applications/Submissions: Compliance with Section 402(j) of The Public Health Service Act, Added By Title VIII of The Food and Drug Administration Amendments Act of 2007”
<http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/HowtoMarketYourDevice/PremarketSubmissions/PremarketNotification510k/ucm134034.htm>. According to the draft guidance, 510(k) submissions that do not contain clinical data do not need the certification form.

Please note the following documents as they relate to 510(k) review: 1) Guidance for Industry and FDA Staff entitled, “Interactive Review for Medical Device Submissions: 510(k)s, Original PMAs, PMA Supplements, Original BLAs and BLA Supplements”. This guidance can be found at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm089402.htm>. Please refer to this guidance for information on a formalized interactive review process. 2) Guidance for Industry and FDA Staff entitled, "Format for Traditional and Abbreviated 510(k)s". This guidance can be found at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm084365.htm>. Please refer to this guidance for assistance on how to format an original submission for a Traditional or Abbreviated 510(k).

In all future premarket submissions, we encourage you to provide an electronic copy of your submission. By doing so, you will save FDA resources and may help reviewers navigate through longer documents more easily. Under CDRH's e-Copy Program, you may replace one paper copy of any premarket submission (e.g., 510(k), IDE, PMA, HDE) with an electronic copy. For more information about the program, including the formatting requirements, please visit our web site at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/HowtoMarketYourDevice/PremarketSubmissions/ucm134508.html>. In addition, the 510(k) Program Video is now available for viewing on line at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/HowtoMarketYourDevice/PremarketSubmissions/PremarketNotification510k/ucm070201.htm>.

Please ensure that whether you submit a 510(k) Summary as per 21 CFR 807.92, or a 510(k) Statement as per 21 CFR 807.93, it meets the content and format regulatory requirements.

Lastly, you should be familiar with the regulatory requirements for medical devices available at Device Advice <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/default.htm>. If you have questions on the status of your submission, please contact DSMICA at (301)796-7100 or the toll-free number (800)638-2041, or at their internet address <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/default.htm>. If you have procedural questions, please contact the 510(k) Staff at (301)796-5640.

Sincerely,

510(k) Staff

Mcdonald, Lisa *

From: Microsoft Outlook
To: john_w_roberts@bd.com
Sent: Tuesday, October 16, 2012 9:30 AM
Subject: Relayed: FW: K123213 ACK Letter

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

john_w_roberts@bd.com (john_w_roberts@bd.com)

Subject: FW: K123213 ACK Letter

Site: null

Page 1 of 1

Form Approved: OMB No. 0910-511 Expiration Date: February 28, 2013. See Instructions for OMB Statement

DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION MEDICAL DEVICE USER FEE COVER SHEET		PAYMENT IDENTIFICATION NUMBER: (b)(4) Write the Payment Identification number on your check.	
A completed cover sheet must accompany each original application or supplement subject to fees. If payment is sent by U.S. mail or courier, please include a copy of this completed form with payment. Payment and mailing instructions can be found at: http://www.fda.gov/oc/mdufma/cover sheet.html			
1. COMPANY NAME AND ADDRESS (include name, street address, city state, country, and post office code) BD MEDICAL SURGICAL SYSTEMS 1 BECTON DRIVE FRANKLIN LAKE NJ 07417 US 1.1 EMPLOYER IDENTIFICATION NUMBER (EIN) *****0120		2. CONTACT NAME John Roberts 2.1 E-MAIL ADDRESS john_w_roberts@bd.com 2.2 TELEPHONE NUMBER (include Area code) 201-8475473 2.3 FACSIMILE (FAX) NUMBER (Include Area code)	
3. TYPE OF PREMARKET APPLICATION (Select one of the following in each column; if you are unsure, please refer to the application descriptions at the following web site: http://www.fda.gov/oc/mdufma) Select an application type: <input checked="" type="checkbox"/> Premarket notification(510(k)); except for third party <input type="checkbox"/> 513(g) Request for Information <input type="checkbox"/> Biologics License Application (BLA) <input type="checkbox"/> Premarket Approval Application (PMA) <input type="checkbox"/> Modular PMA <input type="checkbox"/> Product Development Protocol (PDP) <input type="checkbox"/> Premarket Report (PMR) <input type="checkbox"/> Annual Fee for Periodic Reporting (APR) <input type="checkbox"/> 30-Day Notice			
3.1 Select a center <input checked="" type="checkbox"/> CDRH <input type="checkbox"/> CBER 3.2 Select one of the types below <input checked="" type="checkbox"/> Original Application Supplement Types: <input type="checkbox"/> Efficacy (BLA) <input type="checkbox"/> Panel Track (PMA, PMR, PDP) <input type="checkbox"/> Real-Time (PMA, PMR, PDP) <input type="checkbox"/> 180-day (PMA, PMR, PDP)			
4. ARE YOU A SMALL BUSINESS? (See the instructions for more information on determining this status) <input type="checkbox"/> YES, I meet the small business criteria and have submitted the required qualifying documents to FDA <input checked="" type="checkbox"/> NO, I am not a small business 4.1 If Yes, please enter your Small Business Decision Number:			
5. FDA WILL NOT ACCEPT YOUR SUBMISSION IF YOUR COMPANY HAS NOT PAID AN ESTABLISHMENT REGISTRATION FEE THAT IS DUE TO FDA. HAS YOUR COMPANY PAID ALL ESTABLISHMENT REGISTRATION FEES THAT ARE DUE TO FDA? <input checked="" type="checkbox"/> YES (All of our establishments have registered and paid the fee, or this is our first device, and we will register and pay the fee within 30 days of FDA's approval/clearance of this device.) <input type="checkbox"/> NO (If "NO," FDA will not accept your submission until you have paid all fees due to FDA. This submission will not be processed; see http://www.fda.gov/cdrh/mdufma for additional information)			
6. IS THIS PREMARKET APPLICATION COVERED BY ANY OF THE FOLLOWING USER FEE EXCEPTIONS? IF SO, CHECK THE APPLICABLE EXCEPTION. <input type="checkbox"/> This application is the first PMA submitted by a qualified small business, including any affiliates <input type="checkbox"/> This biologics application is submitted under section 351 of the Public Health Service Act for a product licensed for further manufacturing use only <input type="checkbox"/> The sole purpose of the application is to support conditions of use for a pediatric population <input type="checkbox"/> The application is submitted by a state or federal government entity for a device that is not to be distributed commercially			
7. IS THIS A SUPPLEMENT TO A PREMARKET APPLICATION FOR WHICH FEES WERE WAIVED DUE TO SOLE USE IN A PEDIATRIC POPULATION THAT NOW PROPOSES CONDITION OF USE FOR ANY ADULT POPULATION? (If so, the application is subject to the fee that applies for an original premarket approval application (PMA)). <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
PAPERWORK REDUCTION ACT STATEMENT Public reporting burden for this collection of information is estimated to average 18 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the address below. Department of Health and Human Services, Food and Drug Administration, Office of Chief Information Officer, 1350 Piccard Drive, 4th Floor Rockville, MD 20850 [Please do NOT return this form to the above address, except as it pertains to comments on the burden estimate.]			
8. USER FEE PAYMENT AMOUNT SUBMITTED FOR THIS PREMARKET APPLICATION (b)(4)		12-Oct-2012	

Form FDA 3601 (01/2007)

"Close Window" "Print Cover sheet"

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional

Becton, Dickinson and Company
BD Medical – Medical Surgical Systems
510(k) Premarket Notification: Traditional

BD PhaSeal Closed System Transfer Device

K/23213

1 Becton Drive
Franklin Lakes, New Jersey 07417
tel: 201.847.6800
www.bd.com

6



Helping all people
live healthy lives

12 October 2012

Office of Device Evaluation
Center for Devices and Radiological Health
Document Mail Center WO66-G609
10903 New Hampshire Avenue
Silver Spring, MD 20993-0002

FDA CDRH DMC
OCT 15 2012
Received

Re: 510(k) Premarket Notification: Traditional – PhaSeal Closed System Transfer Device

To Whom It May Concern:

BD hereby submits this **Traditional 510(k)** (original and copy) to re-classify the previously cleared PhaSeal Closed System Transfer Device under product code (b) (4)

In addition, the wording of the indication for use statement has been modified to better reflect the definition provided by the ONB product code. There is no design or performance change associated with this 510(k) submission.

We consider our intent to market this device as confidential information and request it be treated as such by FDA. We have taken precautions to protect the confidentiality of the intent to market these devices. We understand that the submission to the government of false information is prohibited by 18 U.S.C. 1001 and 21 U.S.C. 331(q).

Thank you in advance for your consideration of our application. If there are any questions, please contact me at your earliest convenience.

Sincerely,

John Roberts
Regulatory Affair Specialist
BD Medical - Medical Surgical Systems
Tel: 201 847 5473
Fax: 201 847 5307
john_w_roberts@bd.com

1 Becton Drive
Franklin Lakes, New Jersey 07417
tel: 201.847.6800
www.bd.com



Helping all people
live healthy lives

12 October 2012

Office of Device Evaluation
Center for Devices and Radiological Health
Document Mail Center WO66-G609
10903 New Hampshire Avenue
Silver Spring, MD 20993-0002

Re: 510(k) Premarket Notification: Traditional – PhaSeal Closed System Transfer Device

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Thank you in advance for your consideration of our application. If there are any questions, please contact me at your earliest convenience.

Sincerely,

John Roberts
Regulatory Affair Specialist
BD Medical - Medical Surgical Systems
Tel: 201 847 5473
Fax: 201 847 5307
john_w_roberts@bd.com

Becton, Dickinson and Company

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Table of Contents

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
I. CDRH Premarket Review Submission Cover Sheet	4
II. 510(k) Cover Letter	10
III. Indications for Use Statement	11
IV. 510(k) Summary of Safety and Effectiveness	14
V. Truthful and Accurate Statement	16
VI. Class III Summary and Statement	17
VII. Financial Certification or Disclosure Statement	18
VIII. Declarations of Conformity and Summary Reports	19
IX. Executive Summary	20
X. Device Description	38
XI. Substantial Equivalence Comparison	39
XII. Proposed Labeling	40
XIII. Sterilization and Shelf Life	52
XIV. Biocompatibility	53
XV. Software	54
XVI. Electromagnetic Compatibility and Electrical Safety	55
XVII. Performance Testing - Bench	56
XVIII. Performance Testing - Animal	65
XIX. Performance Testing - Clinical	66
XXI. Appendixes	67

Confidential & Proprietary

Page

DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION		Form Approval OMB No. 9010-0120 Expiration Date: August 31, 2010. See OMB Statement on page 5.
CDRH PREMARKET REVIEW SUBMISSION COVER SHEET		
Date of Submission 1/15/2012	User Fee Payment ID Number	FDA Submission Document Number (if known)

SECTION A					TYPE OF SUBMISSION				
PMA <input type="checkbox"/> Original Submission <input type="checkbox"/> Premarket Report <input type="checkbox"/> Modular Submission <input type="checkbox"/> Amendment <input type="checkbox"/> Report <input type="checkbox"/> Report Amendment <input type="checkbox"/> Licensing Agreement	PMA & HDE Supplement <input type="checkbox"/> Regular (180 day) <input type="checkbox"/> Special <input type="checkbox"/> Panel Track (PMA Only) <input type="checkbox"/> 30-day Supplement <input type="checkbox"/> 30-day Notice <input type="checkbox"/> 135-day Supplement <input type="checkbox"/> Real-time Review <input type="checkbox"/> Amendment to PMA & HDE Supplement <input type="checkbox"/> Other	PDP <input type="checkbox"/> Original PDP <input type="checkbox"/> Notice of Completion <input type="checkbox"/> Amendment to PDP	510(k) <input checked="" type="checkbox"/> Original Submission: <input checked="" type="checkbox"/> Traditional <input type="checkbox"/> Special <input type="checkbox"/> Abbreviated (Complete section I, Page 5) <input type="checkbox"/> Additional Information <input type="checkbox"/> Third Party	Meeting <input type="checkbox"/> Pre-510(K) Meeting <input type="checkbox"/> Pre-IDE Meeting <input type="checkbox"/> Pre-PMA Meeting <input type="checkbox"/> Pre-PDP Meeting <input type="checkbox"/> Day 100 Meeting <input type="checkbox"/> Agreement Meeting <input type="checkbox"/> Determination Meeting <input type="checkbox"/> Other (specify):					
IDE <input type="checkbox"/> Original Submission <input type="checkbox"/> Amendment <input type="checkbox"/> Supplement	Humanitarian Device Exemption (HDE) <input type="checkbox"/> Original Submission <input type="checkbox"/> Amendment <input type="checkbox"/> Supplement <input type="checkbox"/> Report <input type="checkbox"/> Report Amendment	Class II Exemption Petition <input type="checkbox"/> Original Submission <input type="checkbox"/> Additional Information	Evaluation of Automatic Class III Designation (De Novo) <input type="checkbox"/> Original Submission <input type="checkbox"/> Additional Information	Other Submission <input type="checkbox"/> 513(g) <input type="checkbox"/> Other (describe submission):					

Have you used or cited Standards in your submission? Yes No (If Yes, please complete Section I, Page 5)

SECTION B SUBMITTER, APPLICANT OR SPONSOR

Company / Institution Name Becton, Dickinson and Company	Establishment Registration Number (if known) 2243072		
Division Name (if applicable) BD Medical Surgical	Phone Number (including area code) (: 201) 847-5473		
Street Address 1 Becton Drive MC237	FAX Number (including area code) (: 201) 847-5307		
City Franklin Lakes	State / Province NJ	ZIP/Postal Code 07417	Country USA
Contact Name John Roberts			
Contact Title Regulatory Affairs Specialist		Contact E-mail Address john_w_roberts@bd.com	

SECTION C APPLICATION CORRESPONDENT (e.g., consultant, if different from above)

Company / Institution Name			
Division Name (if applicable)		Phone Number (including area code) ()	
Street Address		FAX Number (including area code) ()	
City	State / Province	ZIP/Postal Code	Country
Contact Name			
Contact Title		Contact E-mail Address	

SECTION D1			REASON FOR APPLICATION - PMA, PDP, OR HDE		
<input type="checkbox"/> Withdrawal <input type="checkbox"/> Additional or Expanded Indications <input type="checkbox"/> Request for Extension <input type="checkbox"/> Post-approval Study Protocol <input type="checkbox"/> Request for Applicant Hold <input type="checkbox"/> Request for Removal of Applicant Hold <input type="checkbox"/> Request to Remove or Add Manufacturing Site	<input type="checkbox"/> Change in design, component, or specification: <input type="checkbox"/> Software / Hardware <input type="checkbox"/> Color Additive <input type="checkbox"/> Material <input type="checkbox"/> Specifications <input type="checkbox"/> Other (specify below)	<input type="checkbox"/> Location change: <input type="checkbox"/> Manufacturer <input type="checkbox"/> Sterilizer <input type="checkbox"/> Packager			
<input type="checkbox"/> Process change: <input type="checkbox"/> Manufacturing <input type="checkbox"/> Sterilization <input type="checkbox"/> Packaging <input type="checkbox"/> Other (specify below)	<input type="checkbox"/> Labeling change: <input type="checkbox"/> Indications <input type="checkbox"/> Instructions <input type="checkbox"/> Performance <input type="checkbox"/> Shelf Life <input type="checkbox"/> Trade Name <input type="checkbox"/> Other (specify below)	<input type="checkbox"/> Report Submission: <input type="checkbox"/> Annual or Periodic <input type="checkbox"/> Post-approval Study <input type="checkbox"/> Adverse Reaction <input type="checkbox"/> Device Defect <input type="checkbox"/> Amendment			
<input type="checkbox"/> Response to FDA correspondence:		<input type="checkbox"/> Change in Ownership <input type="checkbox"/> Change in Correspondent <input type="checkbox"/> Change of Applicant Address			
<input type="checkbox"/> Other Reason (specify):					

SECTION D2			REASON FOR APPLICATION - IDE		
<input type="checkbox"/> New Device <input type="checkbox"/> New Indication <input type="checkbox"/> Addition of Institution <input type="checkbox"/> Expansion / Extension of Study <input type="checkbox"/> IRB Certification <input type="checkbox"/> Termination of Study <input type="checkbox"/> Withdrawal of Application <input type="checkbox"/> Unanticipated Adverse Effect <input type="checkbox"/> Notification of Emergency Use <input type="checkbox"/> Compassionate Use Request <input type="checkbox"/> Treatment IDE <input type="checkbox"/> Continued Access	<input type="checkbox"/> Change in: <input type="checkbox"/> Correspondent / Applicant <input type="checkbox"/> Design / Device <input type="checkbox"/> Informed Consent <input type="checkbox"/> Manufacturer <input type="checkbox"/> Manufacturing Process <input type="checkbox"/> Protocol - Feasibility <input type="checkbox"/> Protocol - Other <input type="checkbox"/> Sponsor <input type="checkbox"/> Report submission: <input type="checkbox"/> Current Investigator <input type="checkbox"/> Annual Progress Report <input type="checkbox"/> Site Waiver Report <input type="checkbox"/> Final	<input type="checkbox"/> Repose to FDA Letter Concerning: <input type="checkbox"/> Conditional Approval <input type="checkbox"/> Deemed Approved <input type="checkbox"/> Deficient Final Report <input type="checkbox"/> Deficient Progress Report <input type="checkbox"/> Deficient Investigator Report <input type="checkbox"/> Disapproval <input type="checkbox"/> Request Extension of Time to Respond to FDA <input type="checkbox"/> Request Meeting <input type="checkbox"/> Request Hearing			
<input type="checkbox"/> Other Reason (specify):					

SECTION D3			REASON FOR SUBMISSION - 510(k)		
<input type="checkbox"/> New Device	<input type="checkbox"/> Additional or Expanded Indications	<input type="checkbox"/> Change in Technology			
<input checked="" type="checkbox"/> Other Reason (specify): To re-classify the previously cleared PhaSeal Closed System Transfer Device under product code ONB which was created in response to Citizens Petition Docket# FDA-2008-P-0196. In addition, the wording of the indication for use statement has been modified to better reflect the definition provided by the ONB product code.					

SECTION E ADDITIONAL INFORMATION ON 510(K) SUBMISSIONS

Product codes of devices to which substantial equivalence is claimed				Summary of, or statement concerning, safety and effectiveness information	
LHI	2	3	4	<input checked="" type="checkbox"/> 510 (k) summary attached	<input type="checkbox"/> 510 (k) statement
	6	7	8		

Information on devices to which substantial equivalence is claimed (if known)		
510(k) Number	Trade or Proprietary or Model Name	Manufacturer
1 K090634	1 PhaSeal Protector P14, P21, P28 AND P50	1 Carmel Pharma AB
2 K001368	2 P21, P50, P14, Injector Luer Lock, Infusion Adaptor	2 Carmel Pharma AB
3 K092782	3 Injector luer, Model N34, Injector Luer Lock, MODEL N35, Injector Luer Lock, N35C, Connector Luer Lock, Model C35,	3 Carmel Pharma AB
4 K972527	4 PhaSeal, System for sealed handling of Chemotherapeutic Agents	4 Carmel Pharma AB
5 K980381	5 PhaSeal, closed system for handling of parenteral drugs, additional administration devices. C80 Infusion Adapter, A10 PRO	5 Carmel Pharma AB
6 See 510(k) Cover Letter	6	6

SECTION F PRODUCT INFORMATION - APPLICATION TO ALL APPLICATIONS

Common or usual name or classification
 Closed antineoplastic and hazardous drug reconstitution and transfer system

Trade or Proprietary or Model Name for This Device	Model Number
1 BD PhaSeal Closed System Transfer Device	1 NA
2	2
3	3
4	4
5	5

FDA document numbers of all prior related submissions (regardless of outcome)					
1 K972527	2 K980381	3 K001368	4 K023747	5 K060866	6 K090634
7 K092782	8 K110023	9 K102711	10 K083540	11 K120384	12

Data Included in Submission
 Laboratory Testing Animal Trials Human Trials

SECTION G PRODUCT CLASSIFICATION - APPLICATION TO ALL APPLICATIONS

Product Code ONB	C.F.R. Section (if applicable) 880.5440	Device Class <input type="checkbox"/> Class I <input checked="" type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Unclassified
Classification Panel 876 Gastroenterology and Urology		

Indications (from labeling)
 The PhaSeal system is an airtight and leakproof closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside of the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal System also prevents microbial ingress

Note: Submission of this information does not affect the need to submit a 2891 or 2891a Device Establishment Registration form.

FDA Document Number (if known)

SECTION H MANUFACTURING / PACKAGING / STERILIZATION SITES RELATING TO A SUBMISSION

Original

Add Delete

Facility Establishment Identifier (FEI) Number

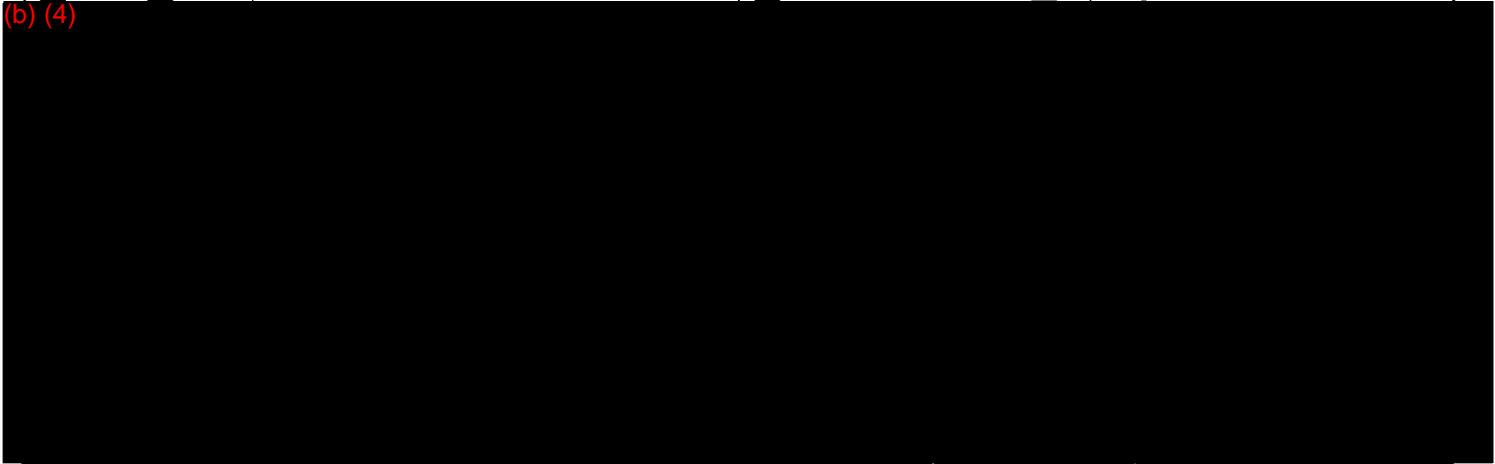
Manufacturer

Contract Manufacturer

Contract Sterilizer

Repackager / Relabeler

(b) (4)



Original

Add Delete

Facility Establishment Identifier (FEI) Number

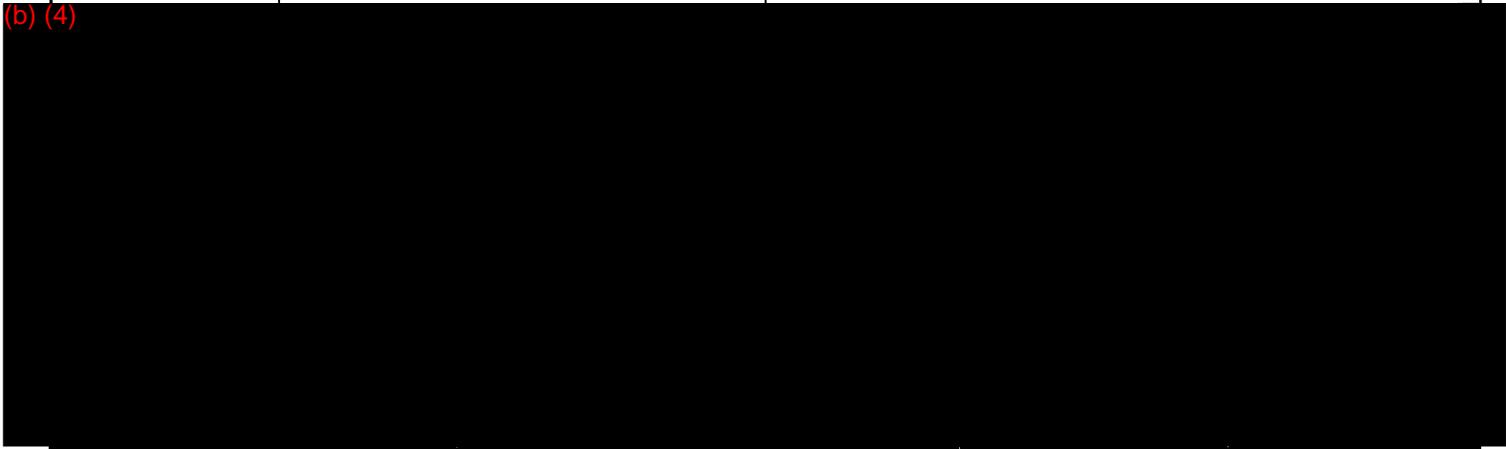
Manufacturer

Contract Manufacturer

Contract Sterilizer

Repackager / Relabeler

(b) (4)



Original

Add Delete

Facility Establishment Identifier (FEI) Number

Manufacturer

Contract Manufacturer

Contract Sterilizer

Repackager / Relabeler

Company / Institution Name

Establishment Registration Number

Division Name (if applicable)

Phone Number (including area code)
()

Street Address

FAX Number (including area code)
()

City

State / Province

ZIP/Postal Code

Country

Contact Name

Contact Title

Contact E-mail Address

SECTION I

UTILIZATION OF STANDARDS

Note: Complete this section if your application or submission cites standards or includes a "Declaration of Conformity to a Recognized Standard" Statement.

	Standards No.	Standards Organization	Standards Title	Version	Date
1					
2					
3					
4					
5					
6					
7					

Please include any additional standards to be cited on a separate page.

Public reporting burden for this collection of information is estimated to average 0.5 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to:

Food and Drug Administration
 CDRH (HFZ-342)
 9200 Corporate Blvd.
 Rockville, MD 20850

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control

K123213

FDA CDRH DMC

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

OCT 15 2012

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section II - 510(k) Cover Letter

Received

Becton, Dickinson and Company

510(k) Type: Traditional

Device Common Name: Closed antineoplastic and hazardous drug reconstitution and transfer system

Submitter: Becton, Dickinson and Company
1 Becton Drive
Franklin Lakes, NJ 07417 USA
Phone: 201 847 6800

Establishment Registration number: 2243072

Contact: John Roberts
Tel: 201 847 5473
Fax: 201 847 5307
Email: john_w_roberts@bd.com

Confidentiality: Confidentiality is claimed for those documents marked as such

Classification Regulation: 21 880.5440

Class: II

Panel: General Hospital

Product Code: ONB

Associated Documents:

1. 510(k) number K972527
2. 510(k) number K980381
3. 510(k) number K001368
4. 510(k) number K023747
5. 510(k) number K060866
6. 510(k) number K090634
7. 510(k) number K092782
8. 510(k) number K110023
9. 510(k) number K120384

Clearance letters associated with each of the referenced submissions are enclosed in Appendix I

Basis for Submission: Reclassification to Product Code ONB

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section III – Indications for Use Statement / Purpose of Submission

III. Indications for Use Statement / Purpose of Submission

The intention of this submission is to modify the FDA-assigned product code of the previously cleared PhaSeal Closed System Transfer Device from LHI to product code ONB.

Current Product Code	LHI	Set, I.V. Fluid Transfer
Proposed Product Code	ONB	Closed Antineoplastic and Hazardous Drug Reconstitution and Transfer System

The ONB product code is defined by CDRH as follows:

Device: Closed Antineoplastic and Hazardous Drug Reconstitution and Transfer System

Regulation Description: Intravascular Administration Set

Definition: Reconstitute and transfer antineoplastic and other hazardous drugs in healthcare setting indicated to reduce exposure of healthcare personnel to chemotherapy agents in healthcare setting.

Physical State: Vial adaptor with piercing spikes, contain Luer-Lock connector fitted with elastomeric membrane to provide a sealed connection between syringe, I.V. administration set or transfer bag. May contain side pressure-equalizing protector unit. May contain needle-free access port.

Technical Method: Placed over vial or container containing the chemotherapy drug.

In order to meet this definition, the wording of the indication for use statement has been modified to better reflect the definition provided by the ONB product code. The additional text is **bolded** in the fully transposed indications for use statement below. All other aspects of the indications for use statement are unchanged from the most recently cleared application K120384.

The PhaSeal system is an **airtight and leakproof** closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal **system** also prevents microbial ingress.

BD has included the additional descriptors “airtight” and “leakproof” to align with the definition of Closed System Transfer Devices provided by the National Institute for Occupational Safety and Health (NIOSH) and the International Society of Oncology Pharmacy Practitioners (ISOPP). These characteristics of Closed System Transfer Devices are essential requirements to reduce health care workers from exposure to hazardous drugs. In addition, NIOSH also cites the need to prevent contaminants from entering the closed system during transfer. As such, in our most

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section III – Indications for Use Statement / Purpose of Submission

recent clearance, we added the following statement to the Indications for Use: “The PhaSeal protector also prevents microbial ingress.” At the time of submission of K120384, we did not have microbial ingress data for the connector portion of the system. The current submission contains the microbial ingress data on the connector. As such, we propose to extend the microbial ingress claim to the entire system; not just the PhaSeal Protector.

The amended indication for use statement, in the official format, is provided on the next page of this submission.

Indications for Use Statement

510(k) Number (if known): _____

Device Name: PhaSeal® – A Closed System Transfer Device

Indications for Use:

The PhaSeal system is an airtight and leakproof closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal system also prevents microbial ingress.

Prescription Use X AND/OR Over-The-Counter Use _____
(Part 21 CFR 801 Subpart D) (21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON ANOTHER
PAGE OF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Page __ of __

510(K) Summary of Safety and Effectiveness

Date Prepared: 12 October 2012

1. **Submitted By:**

John Roberts
Regulatory Affairs Specialist
BD Medical - Medical Surgical Systems
1 Becton Drive
Franklin Lakes, NJ 07417
Tel: 201 847 5473; Fax: 201 847 5307

2. **Device Name:**

Trade Name: BD PhaSeal® Closed System Drug Transfer Device
Common Name: Closed antineoplastic & hazardous drug reconstitution & transfer system
Classification Name: Intravascular administration set
Classification: Class II, 21 CFR 880.5440

3. **Predicate Device:**

PhaSeal Protector: K090634
PhaSeal Injector: K001368, K092782
PhaSeal Connector: K972527, K980381, K060866, K092782, K110023

4. **Device Description:**

The PhaSeal® System is a sterile single-used closed system drug transfer device. The closed transfer of liquid takes place through a double membrane utilizing self-sealing elastomeric membranes, tightly fitted together through a bayonet fitting on all PhaSeal components. A single lumen cannula perforates the double membranes for the transfer of liquid. When the cannula is retracted the membranes seal off the transfer of environmental contaminants into the system and/or escape of drug or vapor concentrations outside the system, thereby minimizing the individual and environmental exposure to drug vapor, aerosols and spills and also minimizing the risk of microbial contamination.

5. **Indications for Use:**

The PhaSeal system is an airtight and leakproof closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal system also prevents microbial ingress.

6. **Technological Characteristics:**

The technological characteristics of the subject device are identical to those of the predicate devices.

7. **Performance:**

The additional tests referenced in the table have been provided in order to substantiate the use of product code ONB - Closed antineoplastic and hazardous drug reconstitution and transfer system – for the BD PhaSeal® Closed System Drug Transfer Device. BD has included the additional airtight and leakproof requirement as both of these requirements are cited by the National Institute for Occupational Safety and Health (NIOSH) and the International Society of Oncology Pharmacy Practitioners (ISOPP) as essential requirements necessary to reduce health care workers from exposure to hazardous drugs. In addition, NIOSH also cites the need to prevent contaminants from entering the closed system during transfer. As such, BD proposes to extend the microbial ingress claim to the entire system; not just the PhaSeal Protector. As there is no change to the subject device in comparison to the predicate devices, the performance data provided represent the performance of both the predicate and subject device of this 510(k).

Item#	Performance Specification:	Status of BD PhaSeal® System
1	Leakproof Connections	No Leaks (Fluorescein Test) ^{1,2}
2	Airtight Connections	No Visible Smoke (TiCl ₄ Test) ³
3	Microbial Ingress	No Ingress at the Protector or Connector

¹ Spivey S, Connor T. **Determining sources of workplace contamination with antineoplastic drugs and comparing conventional IV drug preparation with a closed system.** *Hosp Pharm.* 2003; 38(2): 135-139.

² Jorgenson J, Spivey S, Au C et al. **Contamination comparison of transfer devices intended for handling hazardous drugs.** *Hosp Pharm.* 2008; 43(9): 723-727

³ *Ibid.*

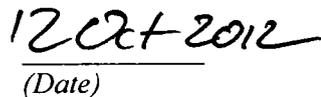
Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section V – Truthful and Accurate Statement

Pre-Market Notification Truthful and Accurate Statement

I certify that, in my capacity as Regulatory Affairs Specialist at Becton, Dickinson and Company, I believe to the best of my knowledge that all data and information submitted in the Pre-Market Notification are truthful and accurate and that no material fact has been omitted.


(Signature)


(Date)

John Roberts
Regulatory Affairs Specialist
BD Medical - Medical Surgical Systems

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section VI – Class III Summary and Certification

VI. Class III Summary and Certification

This Premarket Notification is written for a Class II Medical Device. The Class III Summary and Certification requirements do not apply.

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section VII – Financial Certification or Disclosure Statement

VII. Financial Certification or Disclosure Statement

The Financial Certification and Disclosure requirements do not apply to this Premarket Notification since there were no clinical trials conducted or clinical investigators involved.

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Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section VIII – Declaration of Conformity and Summary Reports

VIII. Declaration of Conformity and Summary Reports

This Premarket Notification is not an Abbreviated 510(k), therefore a Declaration of Conformity and Summary Report is not included.

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

IX. Executive Summary

1. Company Name and Address:

Becton, Dickinson and Company
1 Becton Drive
Franklin Lakes, NJ 07417

2. Contact Information:

John Roberts
Regulatory Affairs Specialist
Tel: 201 847 5473
Fax: 201 847 5307
E-mail: john_w_roberts@bd.com

3. Establishment Registration Information:

Manufacturing Sites:

(b) (4)

Parent Company:

Becton, Dickinson and Company
1 Becton Drive
Franklin Lakes, NJ 07417
FDA Facility Registration Number: 2243072

Sterilization Sites:

(b) (4)

4. Identification of Subject Device

Trade Name: BD PhaSeal® Closed System Drug Transfer Device
Common Name: Closed antineoplastic & hazardous drug reconstitution & transfer system
Classification Name: Intravascular administration set
Classification: Class II, 21 CFR 880.5440

5. Identification of Predicate Device

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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

PhaSeal Protector: K090634
PhaSeal Injector: K001368, K092782
PhaSeal Connector: K972527, K980381, K060866, K092782, K110023

6. Indications for Use

The PhaSeal system is an airtight and leak-proof closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal System also prevents microbial ingress.

7. Purpose of Submission

The intention of this submission is to modify the FDA-assigned product of the previously cleared PhaSeal Closed System Transfer Device from LHI to product code ONB.

Current Product Code	LHI	Set, I.V. Fluid Transfer
Proposed Product Code	ONB	Closed Antineoplastic and Hazardous Drug Reconstitution and Transfer System

The ONB product code is defined by CDRH as follows:

Device: Closed Antineoplastic and Hazardous Drug Reconstitution and Transfer System

Regulation Description: Intravascular Administration Set

Definition: Reconstitute and transfer antineoplastic and other hazardous drugs in healthcare setting indicated to reduce exposure of healthcare personnel to chemotherapy agents in healthcare setting.

Physical State: Vial adaptor with piercing spikes, contain Luer-Lock connector fitted with elastomeric membrane to provide a sealed connection between syringe, I.V. administration set or transfer bag. May contain side pressure-equalizing protector unit. May contain needle-free access port.

Technical Method: Placed over vial or container containing the chemotherapy drug.

In order to meet this definition, the wording of the indication for use statement has been modified to better reflect the definition provided by the ONB product code. The additional text is **bolded** in the fully transposed indications for use statement below. All

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Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

other aspects of the indications for use statement are unchanged from the most recently cleared application K120384.

The PhaSeal system is an **airtight and leakproof** closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal **System** also prevents microbial ingress.

BD has included the additional descriptors “airtight” and “leakproof” to align with the definition of Closed System Transfer Devices provided by the National Institute for Occupational Safety and Health (NIOSH) and the International Society of Oncology Pharmacy Practitioners (ISOPP). These characteristics of Closed System Transfer Devices are essential requirements to reduce health care workers from exposure to hazardous drugs.

Potential routes of exposure to hazardous drugs include, but may not be limited to, dermal absorption, inhalation and ingestion. As none of the possible entry points can be eliminated as a potential risk, ISOPP specifies that only “Airtight” and “Leakproof” devices prevent chemical contamination:

- A product described as a closed-system must be “leakproof and airtight”—therefore vented, filtered devices are not closed. A product cannot be “semi-closed;”
- The vapor of cytotoxic products are not retained by filters with a diameter of 0.22µm and HEPA filters;
- To avoid confusion, it is strongly recommended that if a device claims to prevent chemical contamination it should be airtight and leakproof.¹

In concurrence with these requirements proposed by ISOPP, NIOSH offers the following definition:

- Closed system drug-transfer device (CSTD): a drug transfer device that mechanically prohibits the transfer of environmental contaminants into the system and the escape of hazardous drug or vapor concentrations outside the system.²

It is also important to note that NIOSH stresses that a CSTD must also prohibit the transfer of environmental contaminants into the system. As such, BD has further modified the indication concerning microbial ingress to include the entire system as opposed to just the PhaSeal Protector.

¹ ISOPP Standards of Practice. Journal of Oncology Pharmacy Practice. 2007; 13 Suppl: 1-81

² National Institute for Occupational Safety and Health (NIOSH) NIOSH alert 2004-165. Preventing occupational exposures to antineoplastic and other hazardous drugs in health care settings. Cincinnati, OH: NIOSH; 2004. Available at <http://www.cdc.gov/niosh/docs/2004-165/pdfs/2004-165.pdf>.

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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

To summarize, between the three definitions provided by FDA, NIOSH and ISOPP, BD has identified three critical characteristics of a CSTD.

- The system is airtight
- The system is leak proof
- The system prevents contaminants from entering the system

Please find described in the Summary of Performance testing section outlined below 4 tests which demonstrate that the BD PhaSeal system meets these three requirements: Full study reports can be found in Appendix III

1. Spivey S, Connor T. **“Determining sources of workplace contamination with antineoplastic drugs and comparing conventional IV drug preparation with a closed system.”** *Hosp Pharm.* 2003; 38(2): 135-139.
2. Jorgenson J, Spivey S, Au C et al. **“Contamination comparison of transfer devices intended for handling hazardous drugs.”** *Hosp Pharm.* 2008; 43(9): 723-727

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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

Device Description

The PhaSeal® System is a sterile single-used closed system drug transfer device. The closed transfer of liquid takes place through a double membrane utilizing self-sealing elastomeric membranes, tightly fitted together through a bayonet fitting on all PhaSeal components. A single lumen cannula perforates the double membranes for the transfer of liquid. When the cannula is retracted the membranes seal off the transfer of environmental contaminants into the system and/or escape of drug or vapor concentrations outside the system, thereby minimizing the individual and environmental exposure to drug vapor, aerosols and spills and also minimizes the risk of microbial contamination.

The PhaSeal® System is composed of the following components. Each of the components has been cleared via various 510(k)s. However, the entire system was once again cleared on 12 Sep 2012 for a modification to the indications for use. Specifically, the system was modified

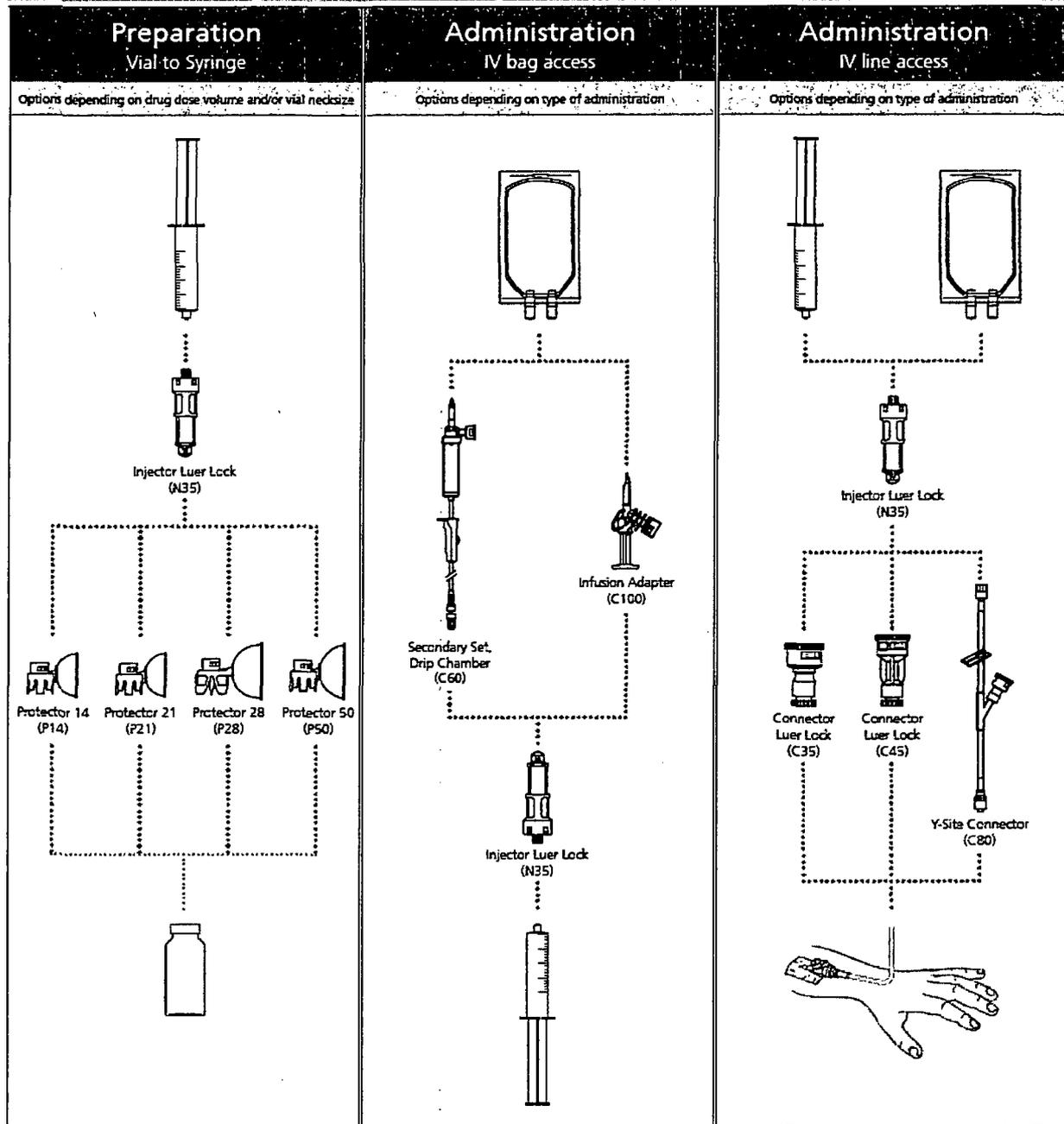
Table 1. List of components of PhaSeal System and their respective 510(k) numbers.

PhaSeal Protector	P14	K120384
	P21	K120384
	P28	K120384
	P50	K120384
PhaSeal Injector	N30C	K120384
	N31	K120384
	N35	K120384
	N35C	K120384
PhaSeal Connector	C35	K120384
	C45	K120384
	C40	K120384
	C48	K120384
	C50	K120384
	C60	K120384
	C61	K120384
	C70	K120384
	C80	K120384
	C100	K120384

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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

Picture 1: Examples of BD PhaSeal® System and process



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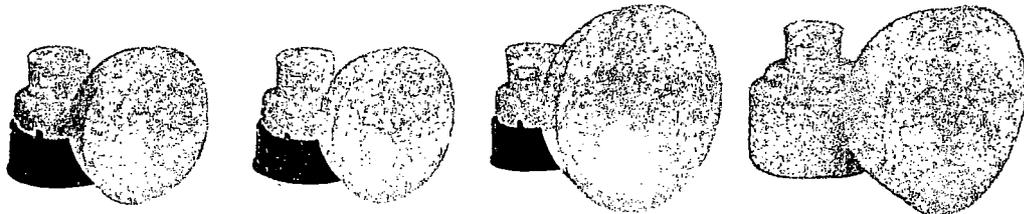
BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

Description of Each Component of the PhaSeal System

- **PhaSeal Protector:**

The Protector is a drug vial adapter that is fitted to the drug vial and seals against the closure of the vial - see Picture 2. The Protector is used as a docking station between the drug vial and the Injector for injection of diluents into the drug vial and/or extraction of liquid drug from the vial. In addition the Protector equilibrates the pressure difference which occurs when fluid or air is added or removed to/from the drug vial. The Protector is provided in four different sizes which are intended to be compatible with various sizes of drug vials ranging from necks from Ø13mm to Ø28mm.

Picture 2: PhaSeal Protector



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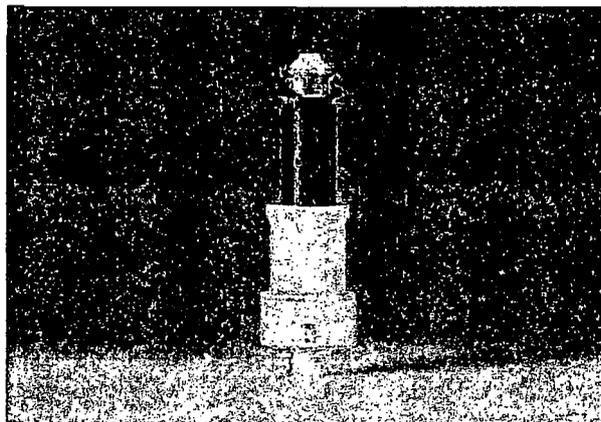
BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

- **PhaSeal Injector:**

The Injector is designed with a single lumen cannula that is encapsulated in a plastic chamber- see Picture 3. One end of Injector locks onto an external device (i.e. syringe) equipped with Luer or Luer Lock fitting. The other end of Injector is sealed with a thermoplastic elastomeric membrane. The elastomeric membrane mates with the "docking station" of the PhaSeal Protector or PhaSeal Connector component equipped with the corresponding "docking station" (i.e. bayonet fitting). The bayonet fitting allows the two elastomeric membranes to be pressed together and a sealed transfer of drug to/from the Protector or to the Connector can be made.

The Injector has a safety feature that must be released to allow the cannula to penetrate the elastomeric membranes and the drug vial stopper. The safety feature is disengaged and re-engaged via the decisive push-turn-push ErgoMotion™ which is described in the BD PhaSeal Instructions for Use. While engaged, the cannula will remain in the safety sleeve – the blue color portion of the Injector. Once attached to a Protector or Connector, the Injector cannot be separated from the bayonet fitting until the needle has been fully retracted into the sealed chamber and the safety feature is re-engaged to ensure the cannula is in the sealed chamber. Thereafter the bayonet fitting can be opened and the Injector is released from the "docking station".

Picture 3: PhaSeal Injector



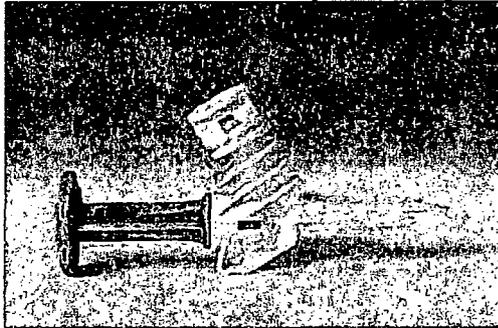
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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

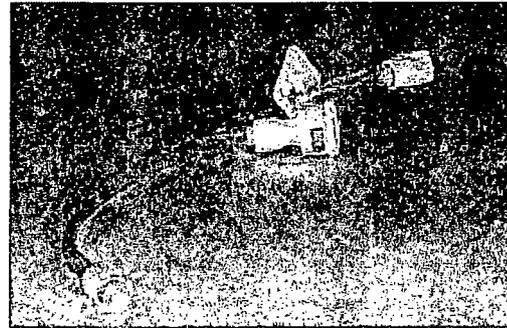
- **PhaSeal Connector:**

The Connector is the interface for patient administration of the drug – see pictures 4-7. The bayonet fitting of the Connector mates with the Injector. The elastomeric membranes of the Connector and the Injector press together to create a seal that enables closed transfer of drug to the patient IV line or into an IV bag. After the drug transfer, the Injector cannula is pulled back via the decisive push-turn-push ErgoMotion™ into the safety sleeve and the Injector can be separated from the Connector. Connectors are provided with a variety of device mating features including a luer fitting, an IV spike (infusion adaptor), secondary set or Y-site connector

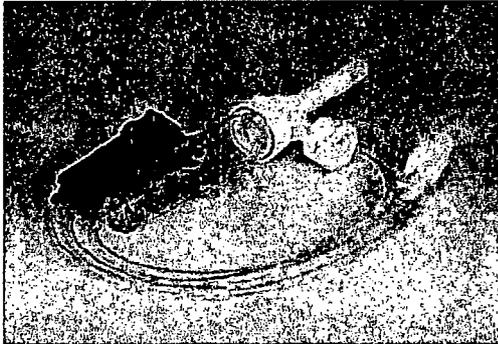
Picture 4: Connector – Infusion Adaptor



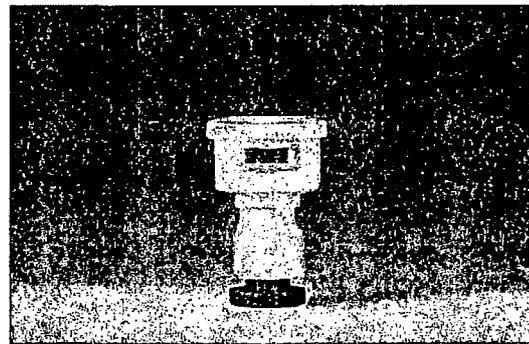
Picture 5: Connector – Y-Site



Picture 6: Connector - Secondary Set



Picture 7: Connector – Luer Lock



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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

A. Summary of Performance Testing

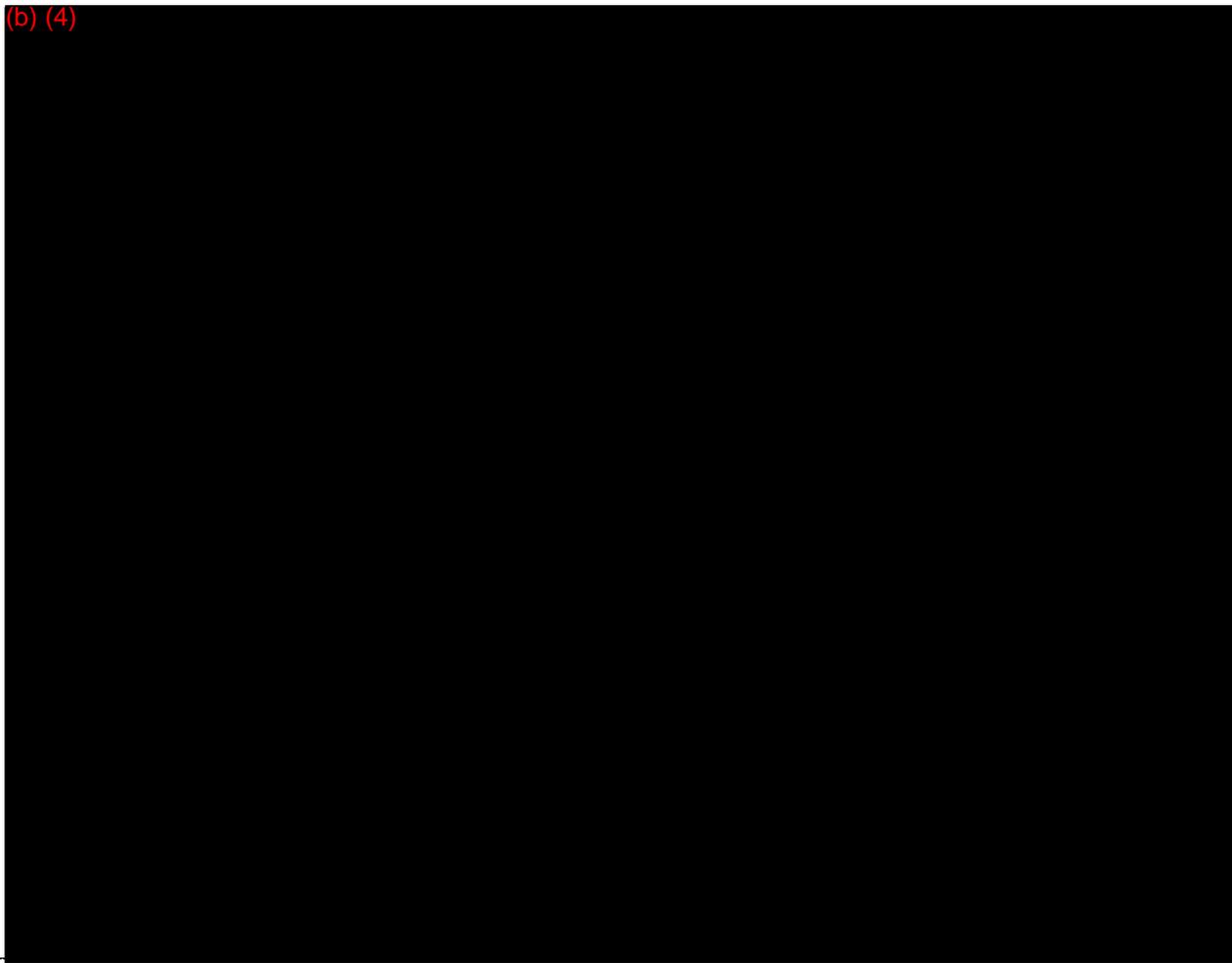
In Appendix III, please find two peer-reviewed publications as well as two Microbial Ingress studies (per FDA guidance) to support the airtight, leak proof and contaminate free requirements that are essential to ensuring healthcare worker safety when preparing and administering hazardous drugs.

1. Spivey S, Connor T. "Determining sources of workplace contamination with antineoplastic drugs and comparing conventional IV drug preparation with a closed system." *Hosp Pharm.* 2003; 38(2): 135-139.
2. Jorgenson J, Spivey S, Au C et al. "Contamination comparison of transfer devices intended for handling hazardous drugs." *Hosp Pharm.* 2008; 43(9): 723-727

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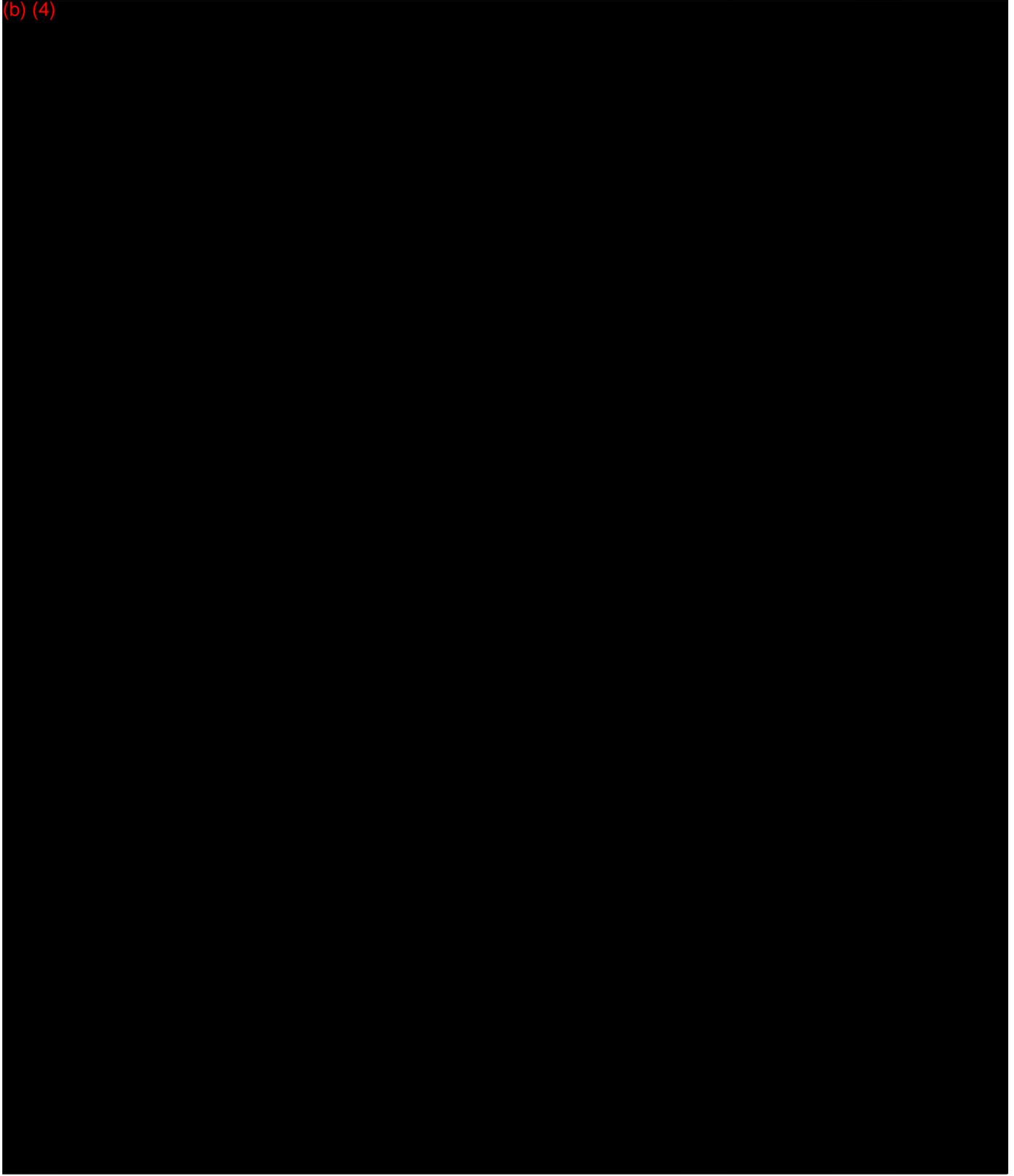
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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

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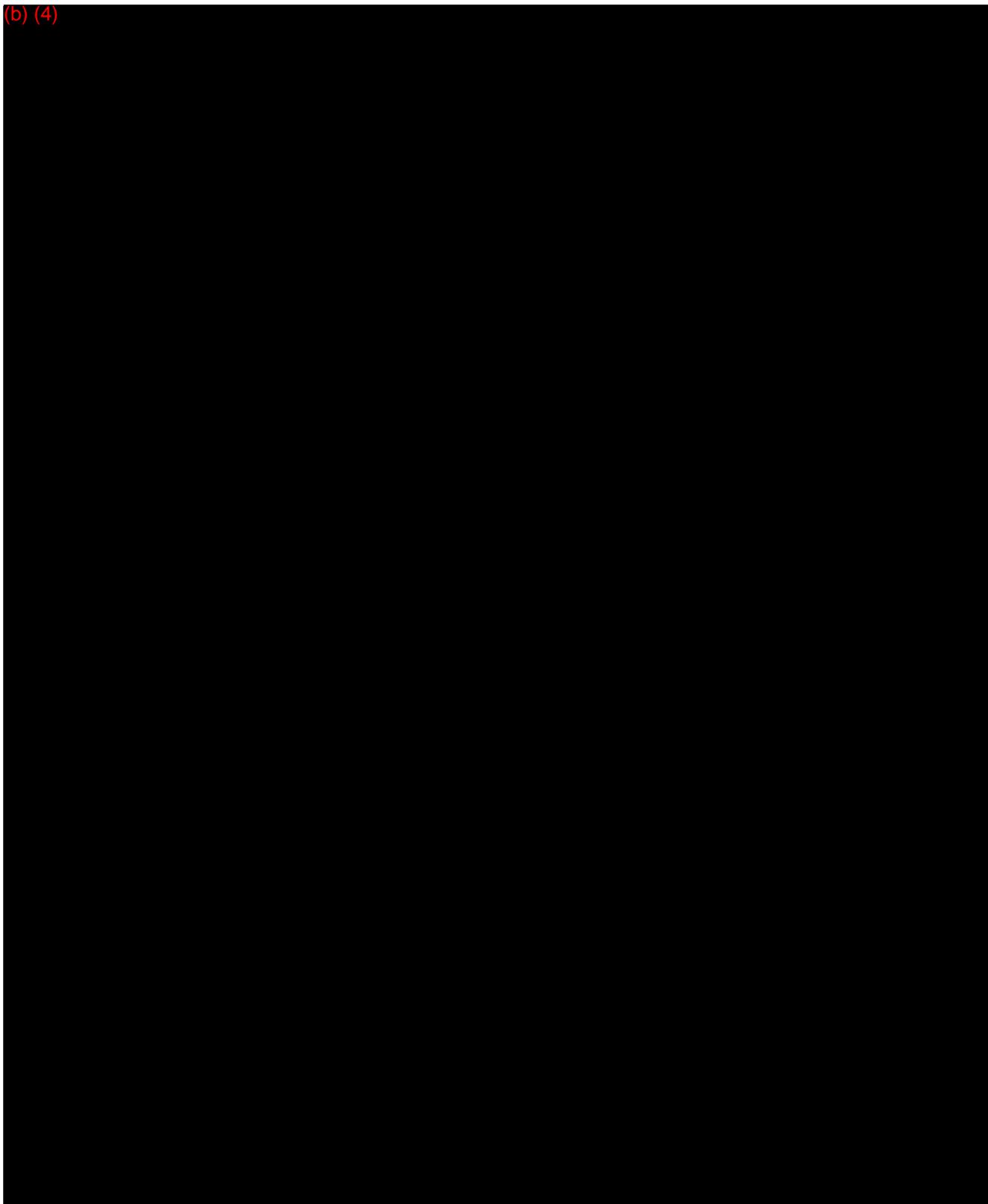
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Pre-Market Notification - Traditional
Section IX – Executive Summary

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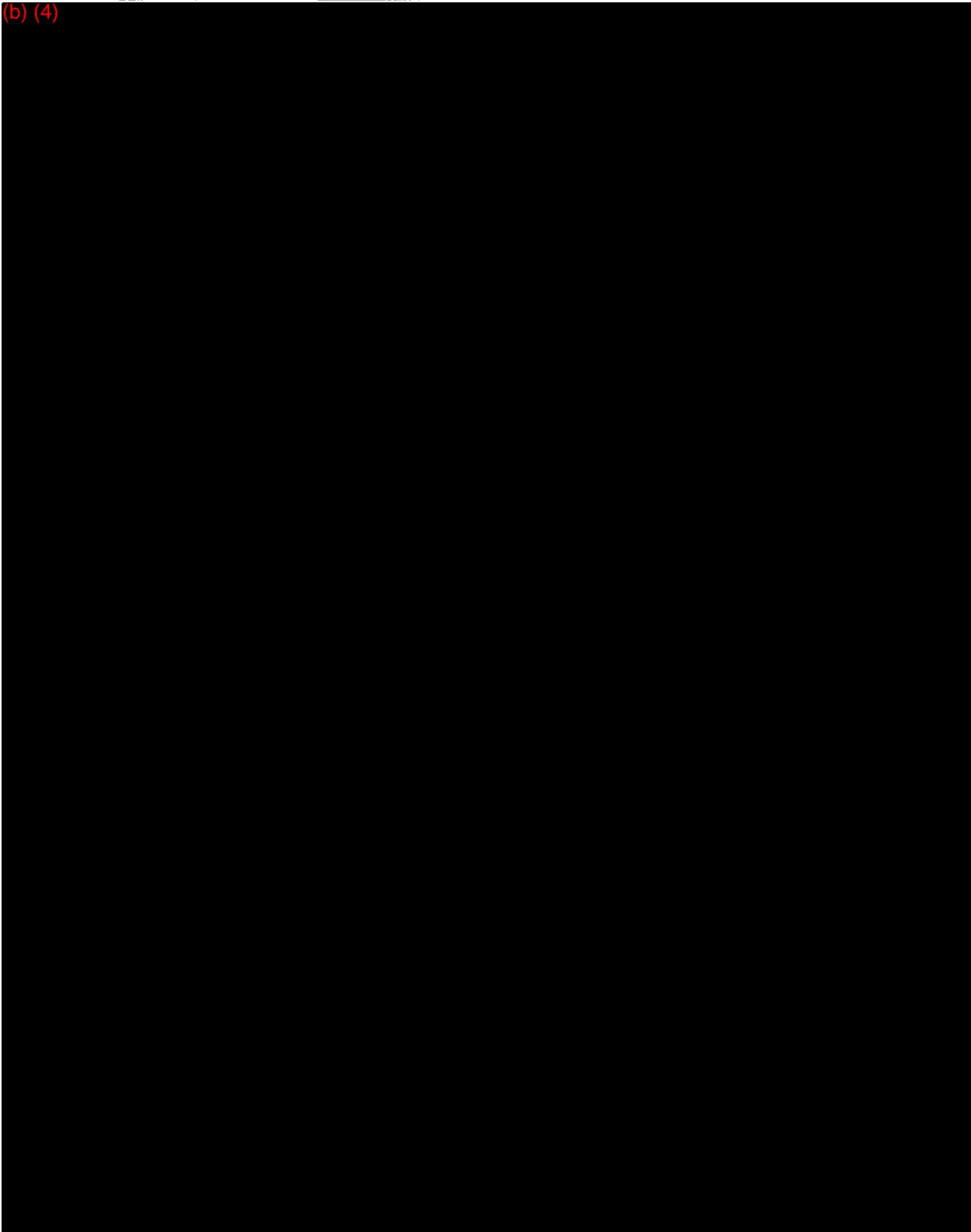
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Pre-Market Notification - Traditional
Section IX – Executive Summary

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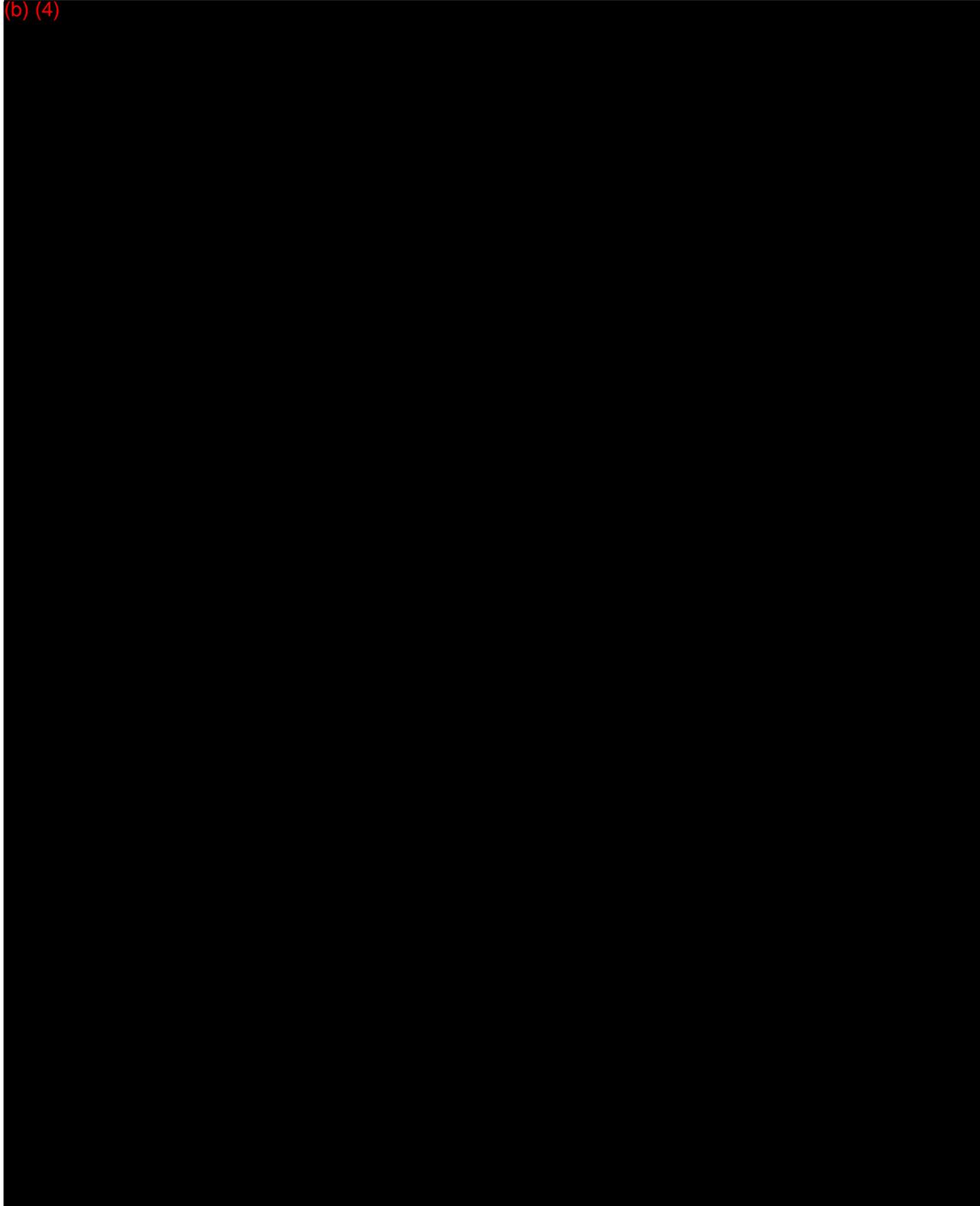
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Page 32 of 175

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

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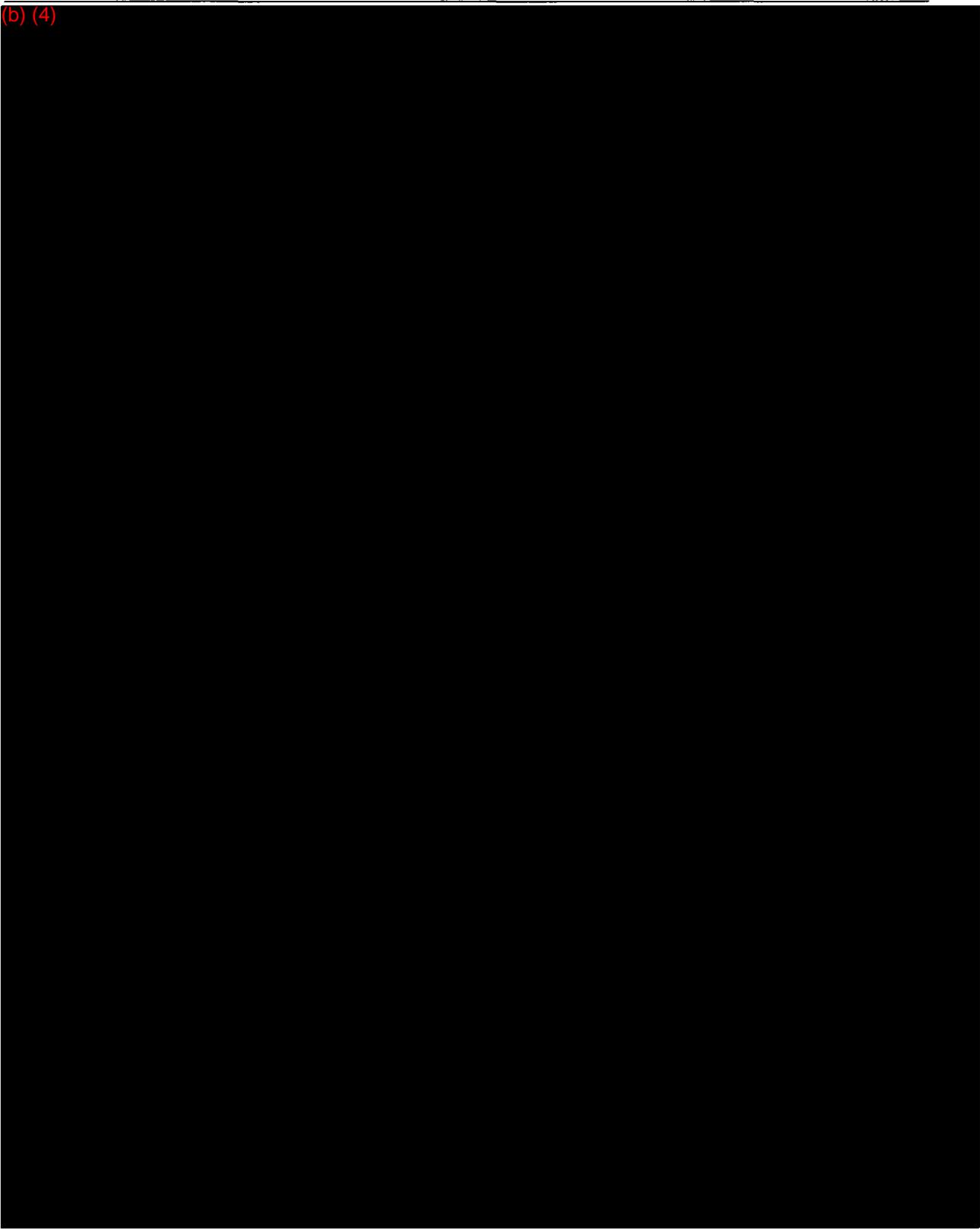
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Page 33 of 175

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

(b) (4)



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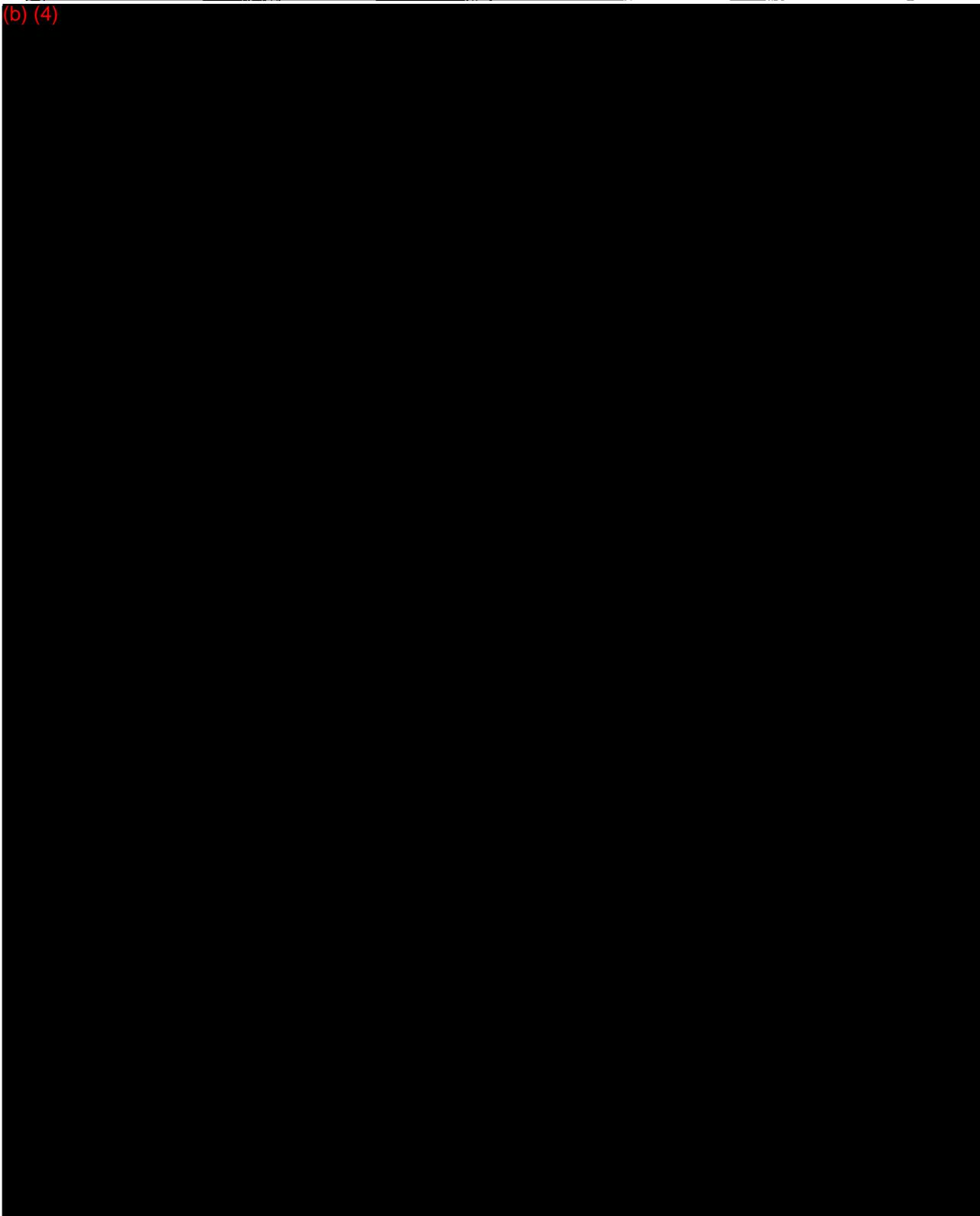
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Page 34 of 175

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

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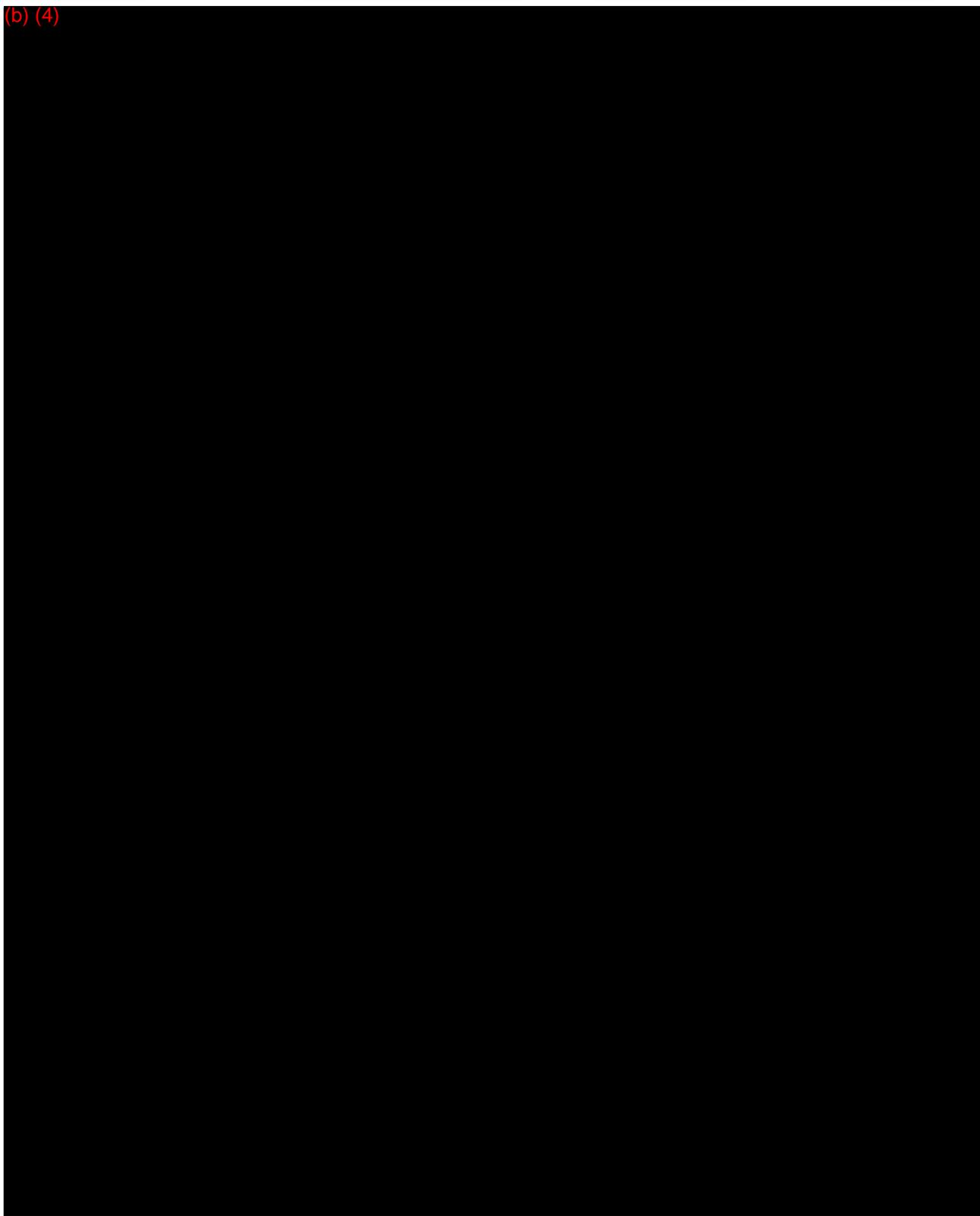
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Page 35 of 175

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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

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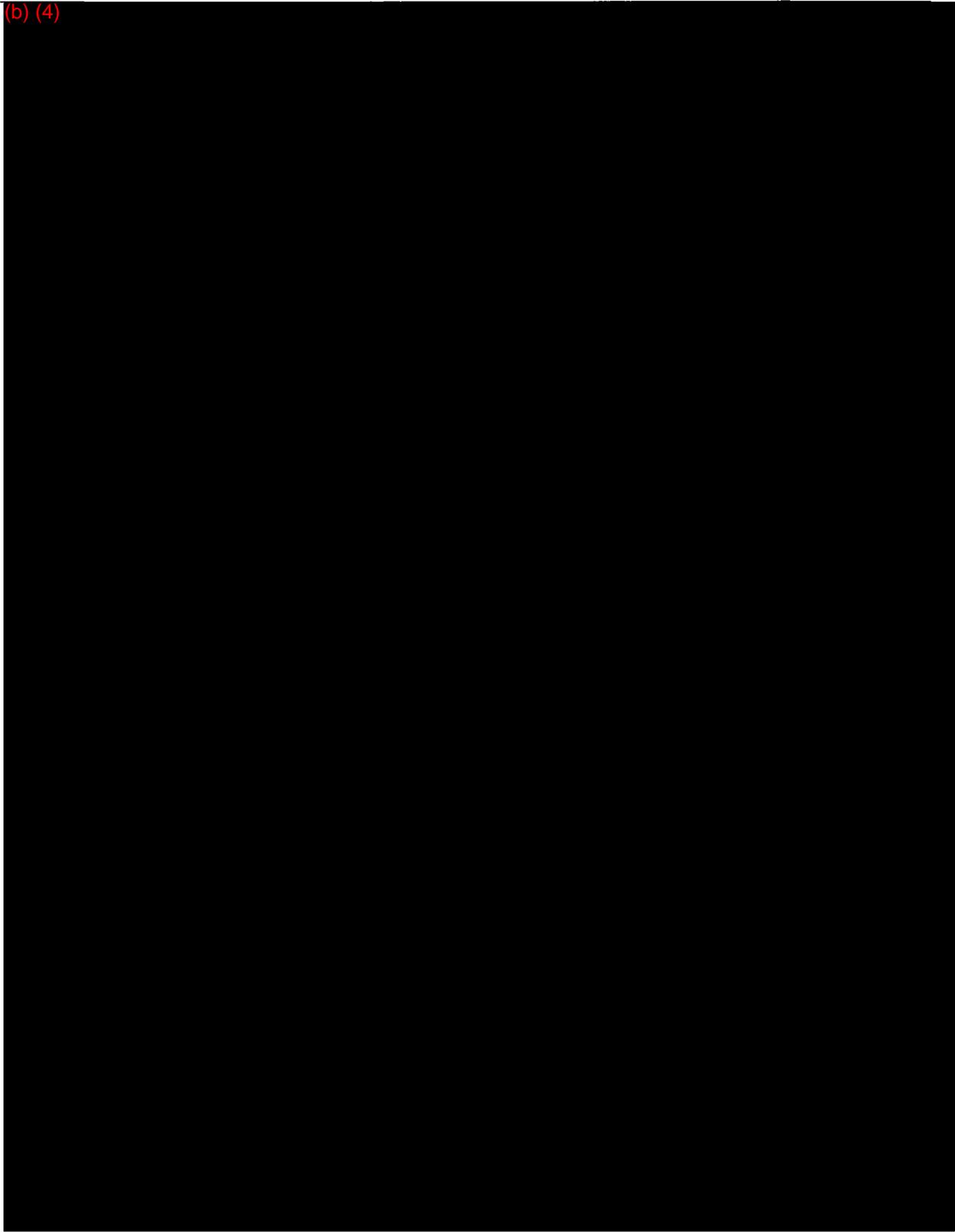
Page

Page 36 of 175

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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section IX – Executive Summary

(b) (4)



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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section X – Device Description

X. DEVICE DESCRIPTION

This section is not applicable, as change described in this 510(k) relates only to the Reclassification of BD Phaseal to product code ONB, and the revision to the indications for use statement to better reflect the new product code. No other change has been made. The performance specifications, device design, models, accessories and components are identical to the predicate device

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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XI – Substantial Equivalence Rationale

XI SUBSTANTIAL EQUIVALENCE RATIONALE

Characteristic	Subject Device: BD PhaSeal	Predicate Device: BD PhasSeal	Equivalence
Indications for Use	The PhaSeal system is an airtight and leak-proof closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal system also prevents microbial ingress	The PhaSeal system is a closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal Protector also prevents microbial ingress	Equivalent to Predicate
Description	Closed System Drug Transfer Device	Closed System Drug Transfer Device	Identical to Predicate
Transfer Mechanism	Elastomeric Double Membrane	Elastomeric Double Membrane	Identical to Predicate
Connection between PhaSeal Components	Bayonet Fitting with Elastomeric Double Membrane	Bayonet Fitting with Elastomeric Double Membrane	Identical to Predicate
Components	Protector, Injector, Connector	Protector, Injector, Connector	Identical to Predicate
Protector Spike	Stainless Steel or Plastic	Stainless Steel or Plastic	Identical to Predicate
Injector Cannula	Stainless Steel	Stainless Steel	Identical to Predicate
Fitting Connection to external standard syringe	Injector: Luer / Luer Lock Connection	Injector: Luer / Luer Lock Connection	Identical to Predicate
Fitting Connection to external standard IV line	Luer Lock or Spike Port	Luer Lock or Spike Port	Identical to Predicate
Fitting Connection to external standard IV bag	Spike	Spike	Identical to Predicate
Needle Safety Feature (Injector Only)	Safety sleeve - ErgoMotion™	Safety sleeve - ErgoMotion™	Identical to Predicate
Sterilization Method	EO	EO	Identical to Predicate

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BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XII – Proposed Labeling

XII. Proposed Labeling

The following labeling has been provided as a representative sample of the BD PhaSeal Closed System Transfer Device labeling and instructions for use.

BD PhaSeal Connector

Proposed Labeled	Representative Sample	Page
Unit Label	C35 Labeling Provided	42
Shelf Label		43
Case Label		44
IFU		44

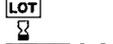
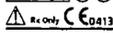
BD PhaSeal Injector

Proposed Labeled	Representative Sample	Page
Unit Label	N35 Labeling Provided	45
Shelf Label		46
Case Label		47
IFU		47

BD PhaSeal Protector

Proposed Labeled	Representative Sample	Page
Unit Label	P21 Labeling Provided	48
Shelf Label		49
Case Label		50
IFU		50




BD PhaSeal™
 Connector
 Luer Lock (C35)
REF 515200
LOT


 Becton, Dickinson and Company Limited,
 Pottery Road,
 Dun Leoghaire,
 Co. Dublin, Ireland.
 www.bd.com
 DGW138101

VENDOR NOTES


BD PhaSeal™
 Connector
 Luer Lock (C35)
REF 515200
LOT 1234547


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 www.bd.com
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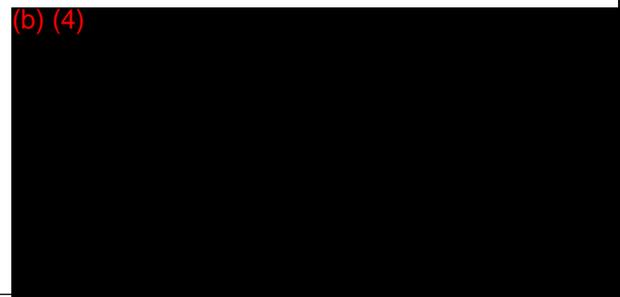
← EXPIRATION DATE,
 MANUFACTURING DATE AND
 LOT NUMBER AS SHOWN

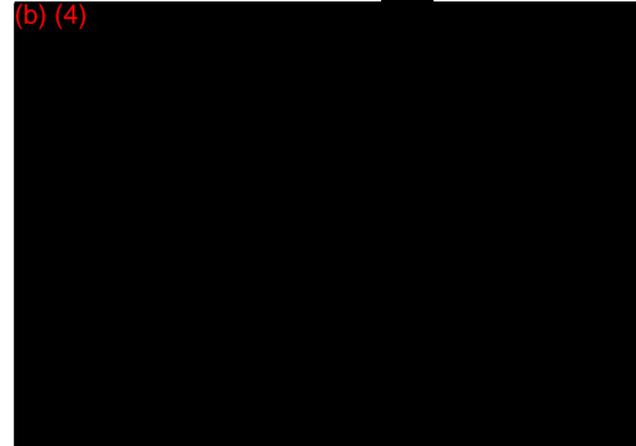
The attached graphics have been set up in a non variable and variable format as depicted.

The printing supplier and final manufacturing printer may print all or any portion of the graphic as long as the complete graphic is in place at the completion of production.

The following scenarios currently exist and are acceptable:

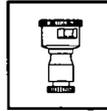
1. Outside printer to print entire label (variable and non variable).
2. Outside printer to print non variable and the Mfg site to print the balance.
3. Outside printer to print a given portion of the graphic and the Mfg site to print the balance.
4. Mfg site to print the entire label (variable and non variable).





BD PhaSeal™
Connector Luer Lock (C35)

50



REF 515200

LOT



QTY: 50

STERILE EO Rx Only CE 0413

BD Becton, Dickinson and Company Limited,
Pottery Road, Dun Laoghaire,
Co. Dublin, Ireland.
Made in Spain www.bd.com

VENDOR INFO

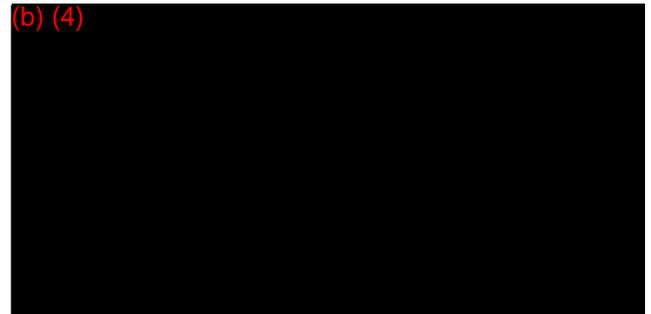
HOLDING LINES... DO NOT PRINT

PRINT BARCODE AS SHOWN

PRINT EXPIRATION DATE, MANUFACTURING DATE AND LOT NUMBER AS SHOWN

The attached graphics have been set up in a non variable and variable format as depicted. The printing supplier and final manufacturing printer may print all or any portion of the graphic as long as the complete graphic is in place at the completion of production.

- The following scenarios currently exist and are acceptable:
1. Outside printer to print entire label (variable and non variable).
 2. Outside printer to print non variable and the Mfg site to print the balance.
 3. Outside printer to print a given portion of the graphic and the Mfg site to print the balance.
 4. Mfg site to print the entire label (variable and non variable).





BD PhaSeal™
Connector Luer Lock (C35)

200



REF **515200**

LOT



QTY: 200

STERILE EO Rx Only 0413

BD Becton, Dickinson and Company Limited,
Pottery Road, Dun Laoghaire,
Co. Dublin, Ireland.
Made in Spain www.bd.com

VENDOR INFO

HOLDING LINES .. DO NOT PRINT

BD PhaSeal™
Connector Luer Lock (C35)

200

REF **515200**

LOT 1234567

20XX-XX

QTY: 200

STERILE EO Rx Only 0413

BD Becton, Dickinson and Company Limited,
Pottery Road, Dun Laoghaire,
Co. Dublin, Ireland.
Made in Spain www.bd.com

Barcode: (17)123456(10)1234567(30)200

Barcode: (01)50382905152001

PRINT BARCODE AS SHOWN

PRINT EXPIRATION DATE, MANUFACTURING DATE AND LOT NUMBER AS SHOWN

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3. Outside printer to print a given portion of the graphic and the Mfg site to print the balance.
4. Mfg site to print the entire label (variable and non variable).





BD PhaSeal™
Injector Luer Lock
(N35)

REF **515003**

LOT



STERILE EO



Rx Only



0413

Becton, Dickinson and
Company Limited,
Pottery Road,
Dun Laoghaire,
Co. Dublin, Ireland.
www.bd.com

DGW132902

VENDOR NOTES

BD PhaSeal™
Injector Luer
Lock (N35)

REF **515003**

LOT **1234567**

20XX-XX

STERILE EO



Rx Only



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www.bd.com

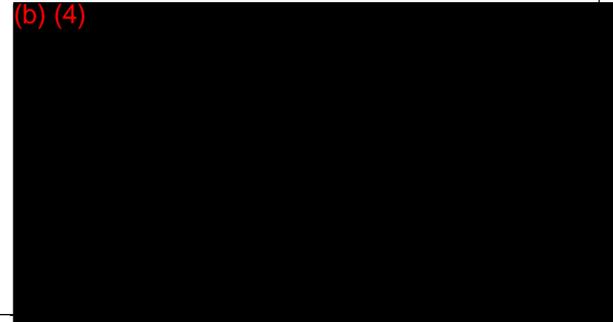
DGW132902

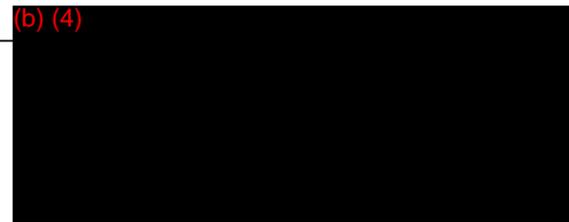
← EXPIRATION DATE,
MANUFACTURING DATE AND
LOT NUMBER AS SHOWN

The attached graphics have been set up in a non variable and variable format as depicted. The printing supplier and final manufacturing printer may print all or any portion of the graphic as long as the complete graphic is in place at the completion of production.

The following scenarios currently exist and are acceptable:

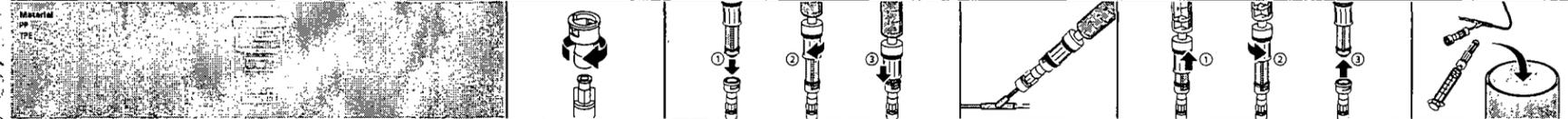
1. Outside printer to print entire label (variable and non variable).
2. Outside printer to print non variable and the Mfg site to print the balance.
3. Outside printer to print a given portion of the graphic and the Mfg site to print the balance.
4. Mfg site to print the entire label (variable and non variable).





Connector Luer Lock (C35) | REF 515200

REF 515200 Catalogue number
 LOT Batch number
 Sterile EO Sterilized using ethylene oxide
 Do not use if seal is broken or damaged
 Do not re-use
 CE 0413

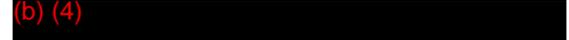


LANGUAGES	Italiano - Istruzioni per l'uso	English - Instructions for use	French - Instructions for use	German - Gebrauchsanweisung	Spanish - Instrucciones de uso	Portuguese - Instruções para utilização	Russian - Инструкция по применению	Czech - Použití	Slovak - Použitie	Slovenian - Navodila za uporabo	Swedish - Bruksanvisning	Finnish - Käyttöohje
Italiano - Istruzioni per l'uso	<p>PhaSeal™ è un sistema chiuso ed è destinato al trattamento di farmaci dalla fase al paziente. Il sistema è composto da un connettore sterile e da un sistema di iniezione sterile. Il sistema è composto da un connettore sterile e da un sistema di iniezione sterile. Il sistema è composto da un connettore sterile e da un sistema di iniezione sterile.</p>	<p>PhaSeal™ is a closed system and is intended for the treatment of drugs from the patient. The system consists of a sterile connector and a sterile injection system. The system consists of a sterile connector and a sterile injection system. The system consists of a sterile connector and a sterile injection system.</p>	<p>PhaSeal™ est un système fermé et est destiné au traitement de médicaments de la phase au patient. Le système est composé d'un connecteur stérile et d'un système d'injection stérile. Le système est composé d'un connecteur stérile et d'un système d'injection stérile. Le système est composé d'un connecteur stérile et d'un système d'injection stérile.</p>	<p>PhaSeal™ ist ein geschlossenes System und ist für die Behandlung von Arzneimitteln von der Phase bis zum Patienten vorgesehen. Das System besteht aus einem sterilen Connector und einem sterilen Injektionssystem. Das System besteht aus einem sterilen Connector und einem sterilen Injektionssystem. Das System besteht aus einem sterilen Connector und einem sterilen Injektionssystem.</p>	<p>PhaSeal™ é um sistema fechado e é destinado ao tratamento de fármacos da fase do paciente. O sistema é composto por um conector estéril e um sistema de injeção estéril. O sistema é composto por um conector estéril e um sistema de injeção estéril. O sistema é composto por um conector estéril e um sistema de injeção estéril.</p>	<p>PhaSeal™ é um sistema fechado e é destinado ao tratamento de fármacos da fase do paciente. O sistema é composto por um conector estéril e um sistema de injeção estéril. O sistema é composto por um conector estéril e um sistema de injeção estéril. O sistema é composto por um conector estéril e um sistema de injeção estéril.</p>	<p>PhaSeal™ — это закрытая система, предназначенная для лечения пациентов. Система состоит из стерильного соединителя и стерильной системы инъекции. Система состоит из стерильного соединителя и стерильной системы инъекции. Система состоит из стерильного соединителя и стерильной системы инъекции.</p>	<p>PhaSeal™ je uzavřený systém určený pro léčbu pacientů. Systém sestává ze sterilního konektoru a sterilní injekční soupravy. Systém sestává ze sterilního konektoru a sterilní injekční soupravy. Systém sestává ze sterilního konektoru a sterilní injekční soupravy.</p>	<p>PhaSeal™ je zaprtý sistem namenjen za zdravlje pacientov. Sistem sestaja iz sterilnega konektora in sterilne injekcijske opreme. Sistem sestaja iz sterilnega konektora in sterilne injekcijske opreme. Sistem sestaja iz sterilnega konektora in sterilne injekcijske opreme.</p>	<p>PhaSeal™ on suljettu järjestelmä lääkkeiden hoitoon. Järjestelmä koostuu sterillisestä yhdistelmästä ja sterillisestä injektiojärjestelmästä. Järjestelmä koostuu sterillisestä yhdistelmästä ja sterillisestä injektiojärjestelmästä. Järjestelmä koostuu sterillisestä yhdistelmästä ja sterillisestä injektiojärjestelmästä.</p>	<p>PhaSeal™ on suljettu järjestelmä lääkkeiden hoitoon. Järjestelmä koostuu sterillisestä yhdistelmästä ja sterillisestä injektiojärjestelmästä. Järjestelmä koostuu sterillisestä yhdistelmästä ja sterillisestä injektiojärjestelmästä. Järjestelmä koostuu sterillisestä yhdistelmästä ja sterillisestä injektiojärjestelmästä.</p>	

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VENDOR NOTES

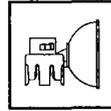
All text and graphics print process black



(b) (4)

BD PhaSeal™
Protector (P21)

50



REF 515102

LOT



QTY: 50

STERILE EO Rx Only CE 0413

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REPRESENTATIVE GRAPHIC REV. 01
08/09/12
See the attached signature page

VENDOR INFO

HOLDING LINES DO NOT PRINT

BD PhaSeal™
Protector (P21)

50

REF 515102

LOT 1234567

20XX-XX

QTY: 50

STERILE EO Rx Only CE 0413

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(17)123456(10)1234567(30)50

(01)50362905151021

PRINT EXPIRATION DATE,
MANUFACTURING DATE AND
LOT NUMBER AS SHOWN

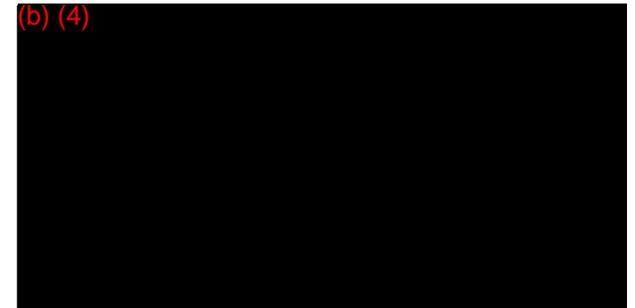
PRINT BARCODE
AS SHOWN

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4. Mfg site to print the entire label (variable and non variable).



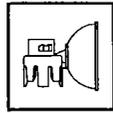
(b) (4)





BD PhaSeal™
Protector (P21)

200



REF 515102

LOT



QTY: 200

STERILE EO Rx Only CE 0413

Becton, Dickinson and Company Limited,
Pottery Road, Dun Laoghaire,
Co. Dublin, Ireland.
Made in Spain www.bd.com

VENDOR INFO

HOLDING LINES.. DO NOT PRINT

BD PhaSeal™
Protector (P21)

200

REF 515102

LOT 1234567

20XX-XX

QTY: 200

STERILE EO Rx Only CE 0413

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Barcode 1: (17)123456(10)1234567(30)200

Barcode 2: (01)50382905151021

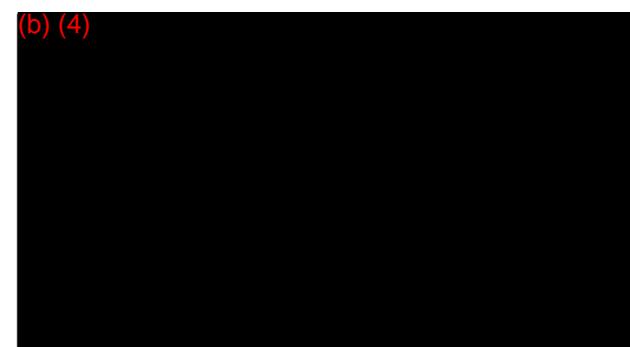
PRINT BARCODE AS SHOWN

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REPRESENTATIVE GRAPHIC REV.01
09/14/12
See the attached signature page



Protector (P14) REF 515100 Protector (P28) REF 515104
 Protector (P21) REF 515102 Protector (P50) REF 515105
 Protector (P21Multi) REF 515103 Protector (P50Multi) REF 515106

Material: PP, PPE, Stainless steel, PPEF

US only: P14, P21, P50

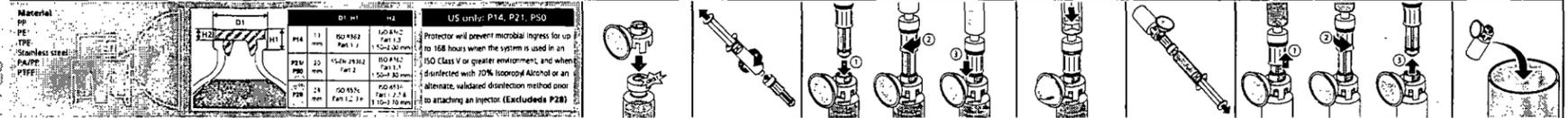
Protector will prevent microbial ingress for up to 188 hours when the system is used in an ISO Class V or greater environment and when disinfected with 70% Isopropyl Alcohol or an alternate, validated disinfection method prior to attaching an injector. (Excludes P28)

STERILE EO Sterilized using ethylene oxide

Do not use if package is damaged

Do not reuse

CE 0413



LANGUAGES	1	2	3	4	5	6	7
Italiano - Istruzioni per l'uso BD PhaSeal™ è un sistema chiuso per il trasferimento di farmaci dalla fiala al paziente. Protector progettato per la preparazione sterile di farmaci. Compatibile con fiale standard con collo da 13, 20 e 28 mm, vetro D1 sovrano, con farmaco non conservato per il polipropilene (PP). Se il farmaco è conservato, il sistema deve essere utilizzato in un ambiente sterile. Seguire le istruzioni per l'uso e le avvertenze per il corretto uso del sistema. Non riutilizzare per evitare la contaminazione. Precauzioni: Non utilizzare se il tappo protettivo non è sempre presente o se il sistema BD PhaSeal™ non è sempre presente. Quando si utilizza il sistema BD PhaSeal™, assicurarsi che la parte superiore del Protector e dell'Injector siano in contatto e che l'equalizzazione della pressione funzioni. Dopo questa operazione, la preparazione della iniezione avviene automaticamente.	Preparare il tappo di protezione. Collegare il Protector finché non si ferma nella fiala con uno scatto.	Assicurarsi che il sistema sia in contatto con la fiala. Premere il Protector verso il basso per innestare il tappo.	Preparare il tappo di protezione. Collegare il Protector finché non si ferma nella fiala con uno scatto.	Preparare il tappo di protezione. Collegare il Protector finché non si ferma nella fiala con uno scatto.	Preparare il tappo di protezione. Collegare il Protector finché non si ferma nella fiala con uno scatto.	Preparare il tappo di protezione. Collegare il Protector finché non si ferma nella fiala con uno scatto.	Preparare il tappo di protezione. Collegare il Protector finché non si ferma nella fiala con uno scatto.
Latvianiski - Instrukcija lietošanai BD PhaSeal™ ir aizvērts sistēma, ar kuru tiek nodrošināta zāļu piegāde pacientam. Protector ir paredzēts zāļu sagatavošanai. Kompatibls ar standarta zāļu ampulām ar 13, 20 un 28 mm garu D1 kakliņu, ar zāli, kas nav sagatavota polipropilēnā (PP). Ja zāle ir sagatavota, sistēmu jāizmanto tīrā, ISO klases V vai augstāka tīrībā. Iepriekš jādisinficē ar 70% izopropilspirtu vai citu, validētu dezinfekcijas metodi, lai nodrošinātu, ka Protector un Injector ir kontaktā un ka spiediena izlīdzināšana darbojas. Pēc šīs darbības zāļu ieviešana notiek automātiski.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.
Latviešu - Lietošanas pamācība BD PhaSeal™ ir aizvērts sistēma zāļu piegādei no pudelītes uz pacientu. Aizsargi un aizsargplēves aizsargā zāļu sagatavošanu. Saderīgi ar standarta pudelītēm ar 13 mm, 20 mm un 28 mm garu D1 kakliņu, un ar zāli, kas nav sagatavota polipropilēnā (PP). Ja zāle ir sagatavota, sistēmu jāizmanto tīrā, ISO klases V vai augstāka tīrībā. Iepriekš jādisinficē ar 70% izopropilspirtu vai citu, validētu dezinfekcijas metodi, lai nodrošinātu, ka Protector un Injector ir kontaktā un ka spiediena izlīdzināšana darbojas. Pēc šīs darbības zāļu ieviešana notiek automātiski.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.	Ārējās daļas aizsargā ar aizsargplēvi. Pievienojiet Protector tālruni, līdz tas iekļūst ampulā.
Nederlands - Gebruiksaanwijzing BD PhaSeal™ is een gesloten systeem voor het overbrengen van geneesmiddelen van de fles naar de patiënt. Protector wordt gebruikt voor de voorbereiding van geneesmiddelen. Compatibel met standaard flesjes met een hals van 13 mm, 20 mm en 28 mm (D1) met een niet-geconserveerd geneesmiddel van polypropyleen (PP). Indien het geneesmiddel wel is geconserveerd, moet het systeem worden gebruikt in een ISO-klasse V of hoger omgeving en moet het eerst worden disinfecteerd met 70% isopropylalcohol of een andere, gevalideerde desinfectiemethode om ervoor te zorgen dat de Protector en de Injector in contact zijn en dat de drukvergelijking werkt. Nadat deze stappen zijn voltooid, wordt de injectie automatisch toegevoerd.	Verwijder de beschermingsfolie van de Protector zodat deze op de fles kan klikken.	Verwijder de beschermingsfolie van de Protector zodat deze op de fles kan klikken.	Verwijder de beschermingsfolie van de Protector zodat deze op de fles kan klikken.	Verwijder de beschermingsfolie van de Protector zodat deze op de fles kan klikken.	Verwijder de beschermingsfolie van de Protector zodat deze op de fles kan klikken.	Verwijder de beschermingsfolie van de Protector zodat deze op de fles kan klikken.	Verwijder de beschermingsfolie van de Protector zodat deze op de fles kan klikken.
Português - Instruções de utilização BD PhaSeal™ é um sistema fechado para transferência de produtos farmacêuticos da fiala para o paciente. Protector desenhado para a preparação de produtos farmacêuticos. Compatível com frascos padrão com gargalo de 13 mm, 20 mm e 28 mm, vidro D1 sovrano, com fármaco não conservado em polipropileno (PP). Se o fármaco for conservado, o sistema deve ser utilizado em um ambiente limpo, ISO Classe V ou superior, e deve ser desinfetado com álcool isopropílico 70% ou outro método de desinfecção validado antes de utilizar o sistema BD PhaSeal™. Quando se utilizar o sistema BD PhaSeal™, certifique-se de que a parte superior do Protector e do Injector estejam em contato e de que a equalização de pressão esteja funcionando. Após esta operação, a administração da injeção ocorre automaticamente.	Remova a tampa de proteção. Ligue o Protector até que ele encaixe na fiala.	Remova a tampa de proteção. Ligue o Protector até que ele encaixe na fiala.	Remova a tampa de proteção. Ligue o Protector até que ele encaixe na fiala.	Remova a tampa de proteção. Ligue o Protector até que ele encaixe na fiala.	Remova a tampa de proteção. Ligue o Protector até que ele encaixe na fiala.	Remova a tampa de proteção. Ligue o Protector até que ele encaixe na fiala.	Remova a tampa de proteção. Ligue o Protector até que ele encaixe na fiala.
Russian - Инструкция по применению BD PhaSeal™ — это система для обеспечения стерильности при инъекции лекарственных препаратов. Предназначена для приготовления стерильных лекарственных препаратов. Совместима со стандартными ампулами с 13 мм, 20 мм и 28 мм длиной D1 шейки, с лекарством, не консервированным в полипропилене (PP). Если лекарство консервировано, систему необходимо использовать в чистой, ISO класса V или выше среде. Перед использованием необходимо продезинфицировать систему с помощью 70% изопропилового спирта или другого валидированного метода дезинфекции, чтобы убедиться, что Protector и Injector находятся в контакте и что выравнивание давления работает. После этой операции введение инъекции происходит автоматически.	Снимите защитную пленку. Подключите Protector до щелчка.	Снимите защитную пленку. Подключите Protector до щелчка.	Снимите защитную пленку. Подключите Protector до щелчка.	Снимите защитную пленку. Подключите Protector до щелчка.	Снимите защитную пленку. Подключите Protector до щелчка.	Снимите защитную пленку. Подключите Protector до щелчка.	Снимите защитную пленку. Подключите Protector до щелчка.
Slovenščina - Navodila za uporabo BD PhaSeal™ je zaprt sistem za prenos zdravil iz steklene ali plastične ampule. Protector je namenjen pripravi sterilnih zdravil. Kompatibilen je s standardnimi ampulami s 13 mm, 20 mm in 28 mm dolžino vratne odprtine D1, s zdravilom, ki ni shranjeno v polipropilenu (PP). Če zdravilo shranjujejo, morate uporabiti sistem BD PhaSeal™ v čisti, ISO razreda V ali višji okolici. Pred uporabo morate sistem BD PhaSeal™ disinficirati s 70% izopropilnim alkoholom ali drugo validirano metodo dezinfekcije, da zagotovite, da sta vrh Protectorja in Injectorja v stiku in da deluje izenačevanje tlaka. Po tem postopku se injiciranje avtomatično izvede.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.
Slovenščina - Navodila za uporabo BD PhaSeal™ je zaprt sistem za prenos zdravil iz steklene ali plastične ampule. Protector je namenjen pripravi sterilnih zdravil. Kompatibilen je s standardnimi ampulami s 13 mm, 20 mm in 28 mm dolžino vratne odprtine D1, s zdravilom, ki ni shranjeno v polipropilenu (PP). Če zdravilo shranjujejo, morate uporabiti sistem BD PhaSeal™ v čisti, ISO razreda V ali višji okolici. Pred uporabo morate sistem BD PhaSeal™ disinficirati s 70% izopropilnim alkoholom ali drugo validirano metodo dezinfekcije, da zagotovite, da sta vrh Protectorja in Injectorja v stiku in da deluje izenačevanje tlaka. Po tem postopku se injiciranje avtomatično izvede.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.	Odstranite zaščitno folijo. Priključite Protector, dokler se ne klikne na ampulo.
Svenska - Bruksanvisning BD PhaSeal™ är ett slutet system för läkemedelöverföring från fiala till patient. Protector används för sluten beredning av läkemedel. Kompatibelt med standardfäskor med 13 mm, 20 mm och 28 mm höjd, se D1 övert, samt med läkemedel som inte är konserverade för polypropylen (PP). Särskilt lämpligt för icke konserverade läkemedel. Om läkemedlet är konserverat, ska systemet användas i en ISO-klass V eller högre miljö och ska först desinficeras med 70% isopropylalkohol eller annan validerad desinfektionsmetod för att säkerställa att Protector och Injector är i kontakt och att tryckjämnningen fungerar. Efter denna operation sker injektionen automatiskt.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.
Svenska - Bruksanvisning BD PhaSeal™ är ett slutet system för läkemedelöverföring från fiala till patient. Protector används för sluten beredning av läkemedel. Kompatibelt med standardfäskor med 13 mm, 20 mm och 28 mm höjd, se D1 övert, samt med läkemedel som inte är konserverade för polypropylen (PP). Särskilt lämpligt för icke konserverade läkemedel. Om läkemedlet är konserverat, ska systemet användas i en ISO-klass V eller högre miljö och ska först desinficeras med 70% isopropylalkohol eller annan validerad desinfektionsmetod för att säkerställa att Protector och Injector är i kontakt och att tryckjämnningen fungerar. Efter denna operation sker injektionen automatiskt.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.	Avlägsna skyddsfolien. Montera Protector till flaskan tills det hör ett klick.
Türkçe - Kullanım Talimatları BD PhaSeal™, ilaçları damardan hastaya güvenli şekilde transfer etmek için tasarlanmıştır. Protector, ilaçların steril hazırlanmasını sağlar. Standart 13 mm, 20 mm ve 28 mm boyunlu D1 boyunlu ampullarla uyumlüdür. İlaçlar koruyucu polipropilen (PP) içinde değilse, sistem temiz, ISO sınıfı V veya daha yüksek ortamda kullanılmalıdır. Kullanmadan önce sistem BD PhaSeal™, 70% izopropil alkol veya başka bir onaylanmış dezenfeksiyon yöntemiyle dezenfekte edilmelidir, böylece Protector ve Injector temas halinde olacak ve basınç dengeleme çalışacaktır. İşlem tamamlandıktan sonra enjeksiyon otomatik olarak yapılır.	Koruyucu kapakları çıkarın. Protector'ü ampula dokunana kadar tutun.	Koruyucu kapakları çıkarın. Protector'ü ampula dokunana kadar tutun.	Koruyucu kapakları çıkarın. Protector'ü ampula dokunana kadar tutun.	Koruyucu kapakları çıkarın. Protector'ü ampula dokunana kadar tutun.	Koruyucu kapakları çıkarın. Protector'ü ampula dokunana kadar tutun.	Koruyucu kapakları çıkarın. Protector'ü ampula dokunana kadar tutun.	Koruyucu kapakları çıkarın. Protector'ü ampula dokunana kadar tutun.

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DOP12003 PHA727

VENDOR NOTES

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Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Drug Transfer Device
Pre-Market Notification - Traditional
Section XII – Sterilization and Shelf Life

XII Sterilization and Shelf Life

This section is not applicable as the sterilization method and shelf life have not changed since the previous clearance of this device

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XIV – Biocompatibility

XIV Biocompatibility

This section is not applicable as the materials of the device have not changed since the previous clearance of this device

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XV – Software

XV. Software

This section is not applicable as there is no software associated with this device.

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XVI – Electromagnetic Compatibility and Electrical Safety

XVI. Electromagnetic Compatibility and Electrical Safety

This section is not applicable as there are no electrical components in this device.

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XVII – Performance Testing - Bench

XVII. Performance Testing - Bench

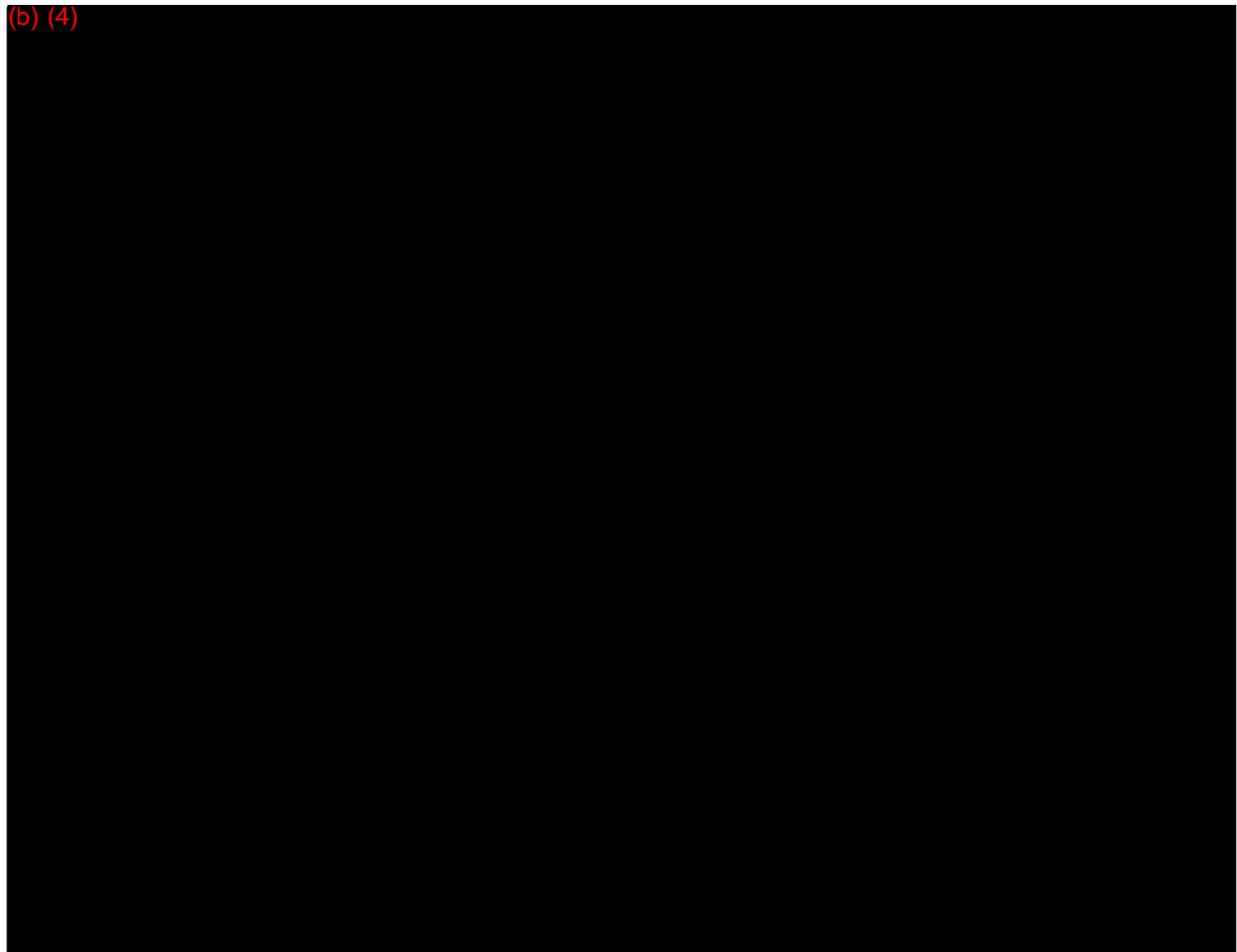
In Appendix III, please find two peer-reviewed publications as well as two Microbial Ingress studies (per FDA guidance) to support the airtight, leak proof and contaminate free requirements that are essential to ensuring healthcare worker safety when preparing and administering hazardous drugs.

1. Spivey S, Connor T. "Determining sources of workplace contamination with antineoplastic drugs and comparing conventional IV drug preparation with a closed system." *Hosp Pharm.* 2003; 38(2): 135-139.
2. Jorgenson J, Spivey S, Au C et al. "Contamination comparison of transfer devices intended for handling hazardous drugs." *Hosp Pharm.* 2008; 43(9): 723-727

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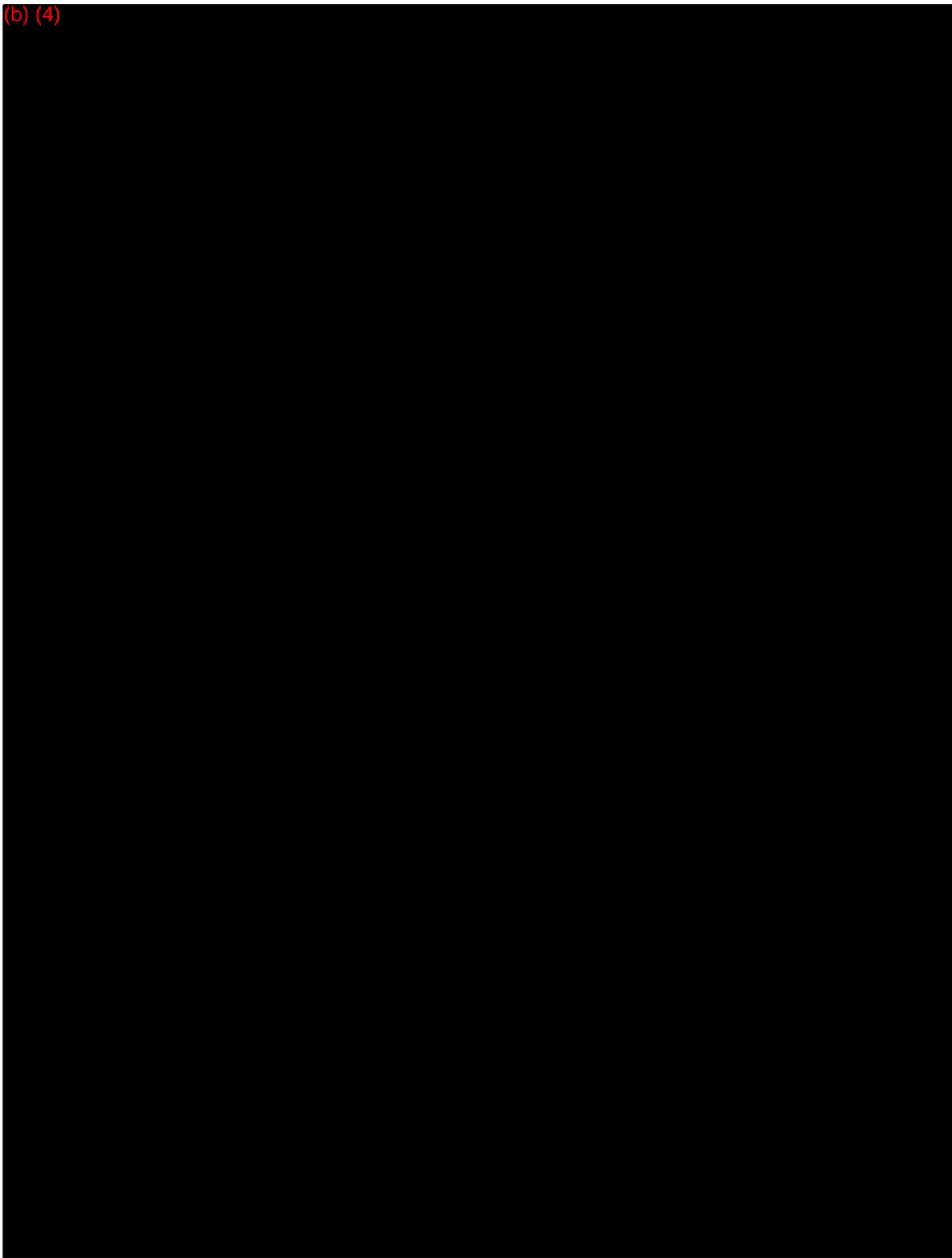
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Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XVII – Performance Testing - Bench

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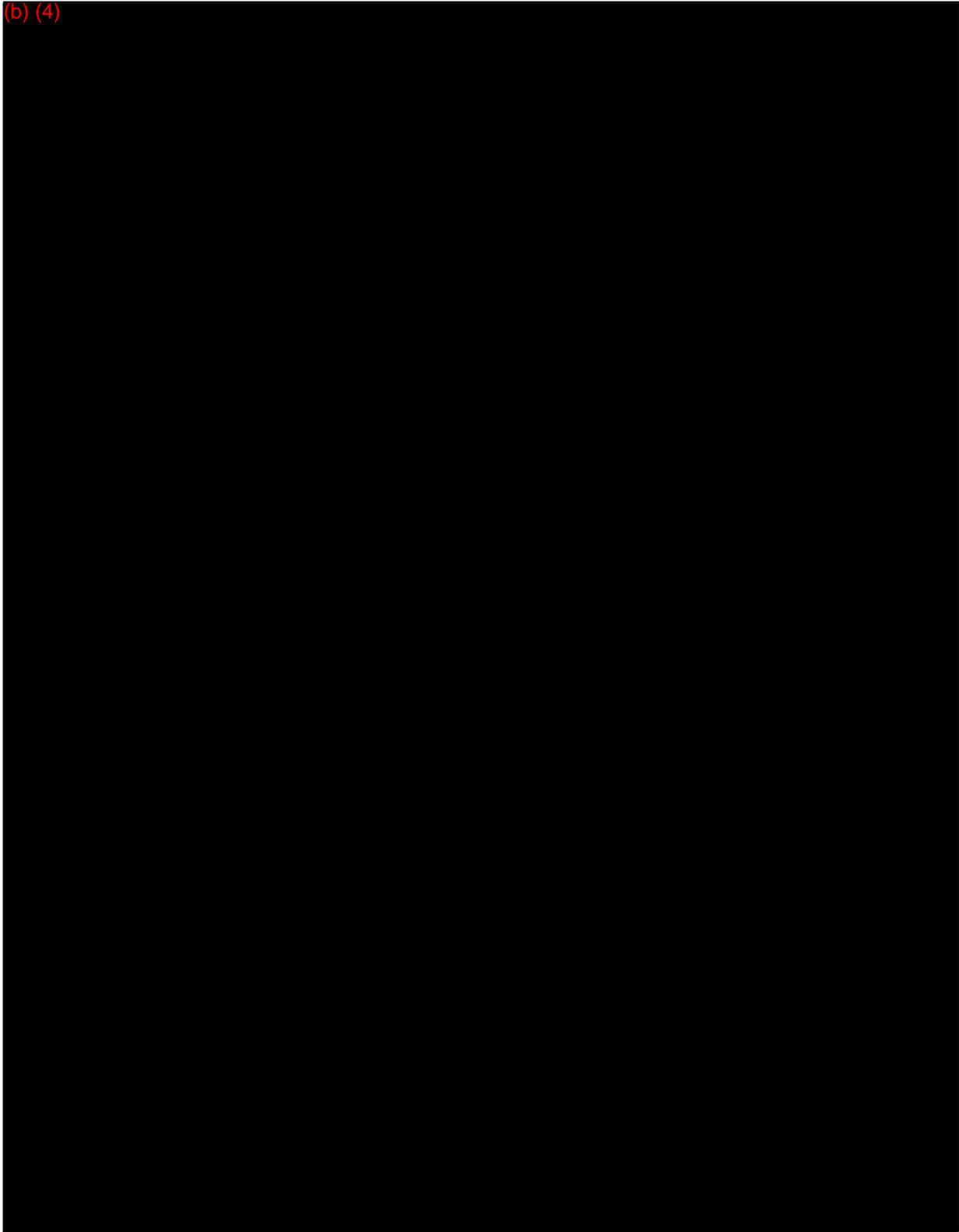
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Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XVII – Performance Testing - Bench

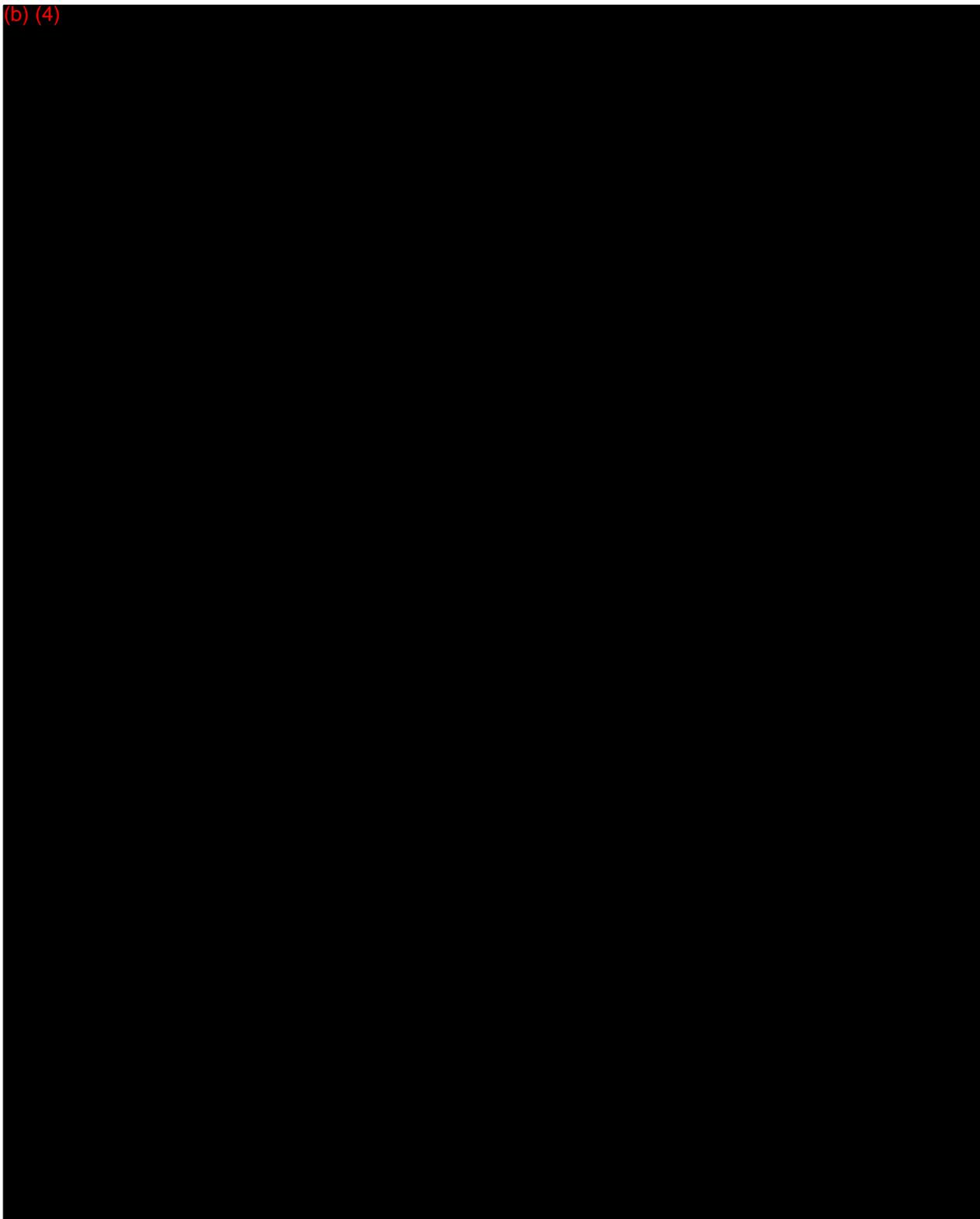
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Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XVII – Performance Testing - Bench

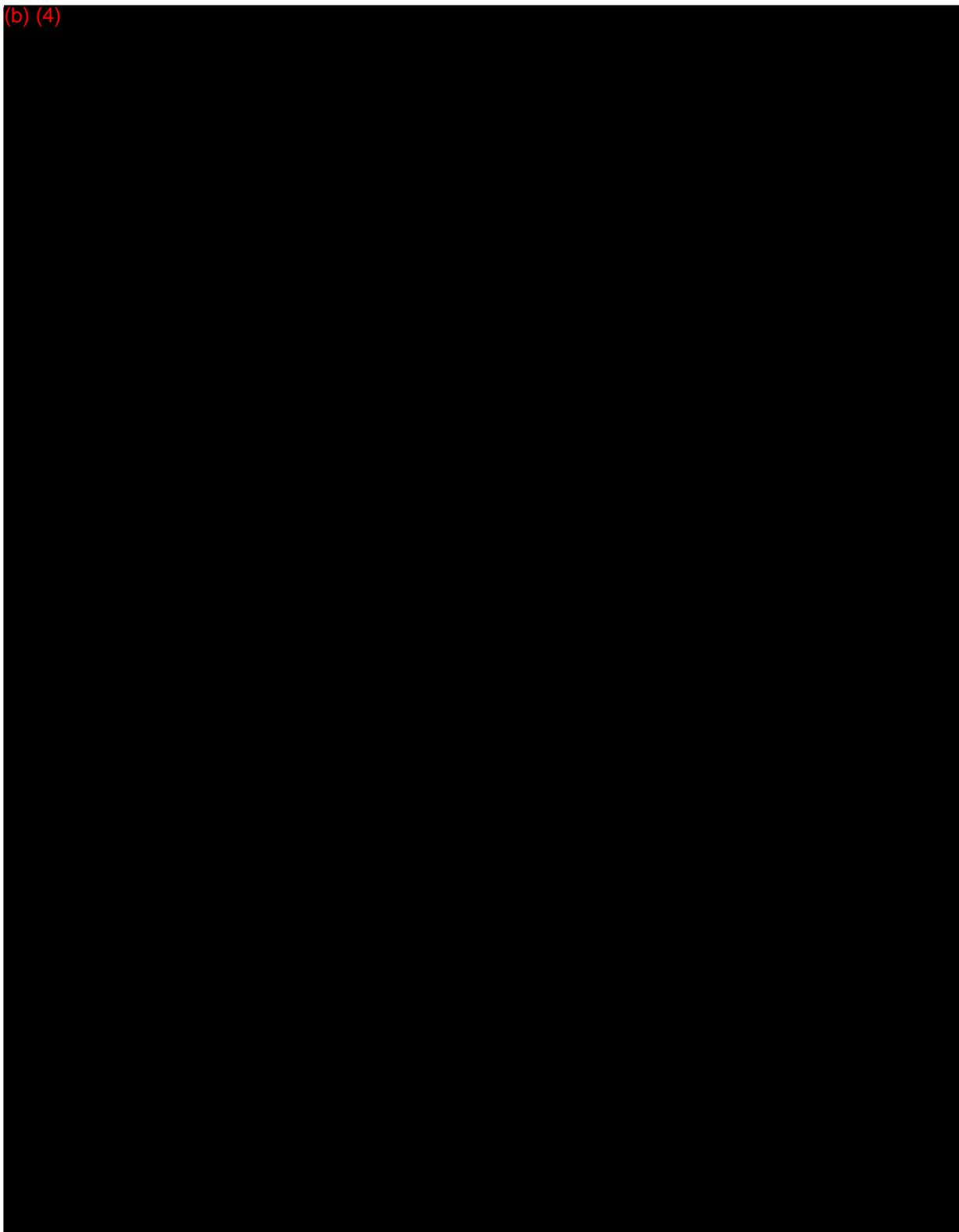
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Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XVII – Performance Testing - Bench

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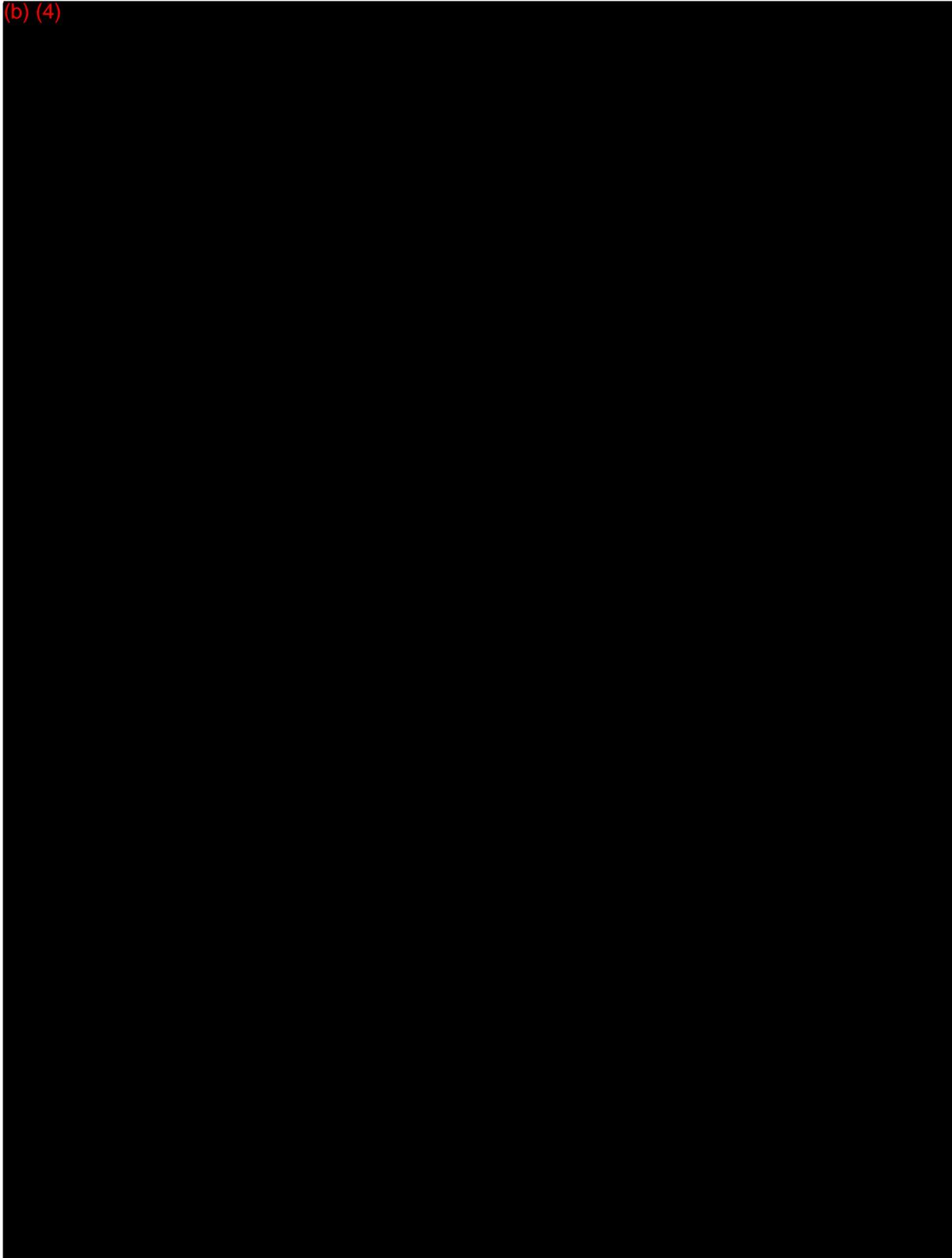
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Page 60 of 175

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XVII – Performance Testing - Bench

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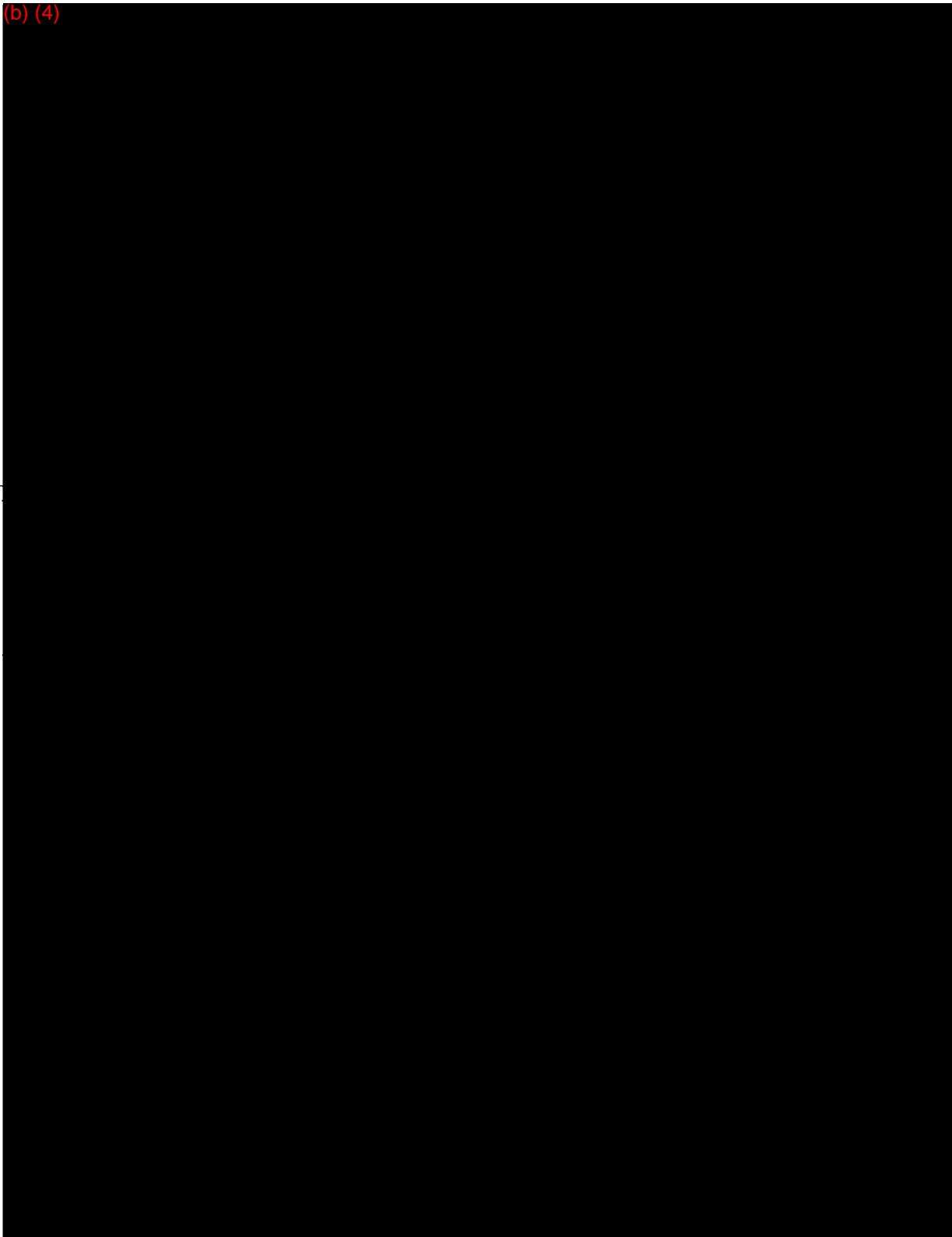
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Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XVII – Performance Testing - Bench

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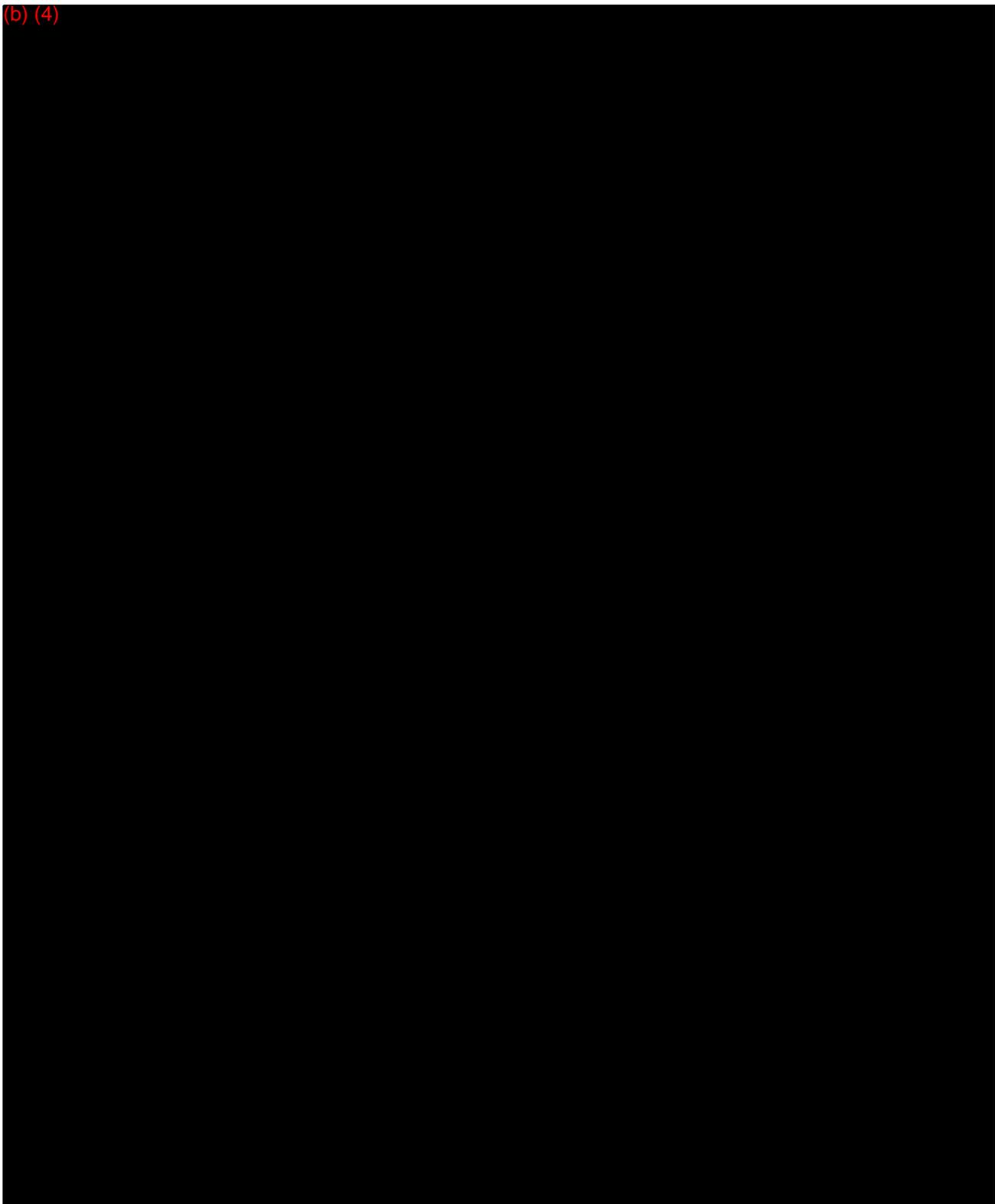
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Page 62 of 175

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XVII – Performance Testing - Bench

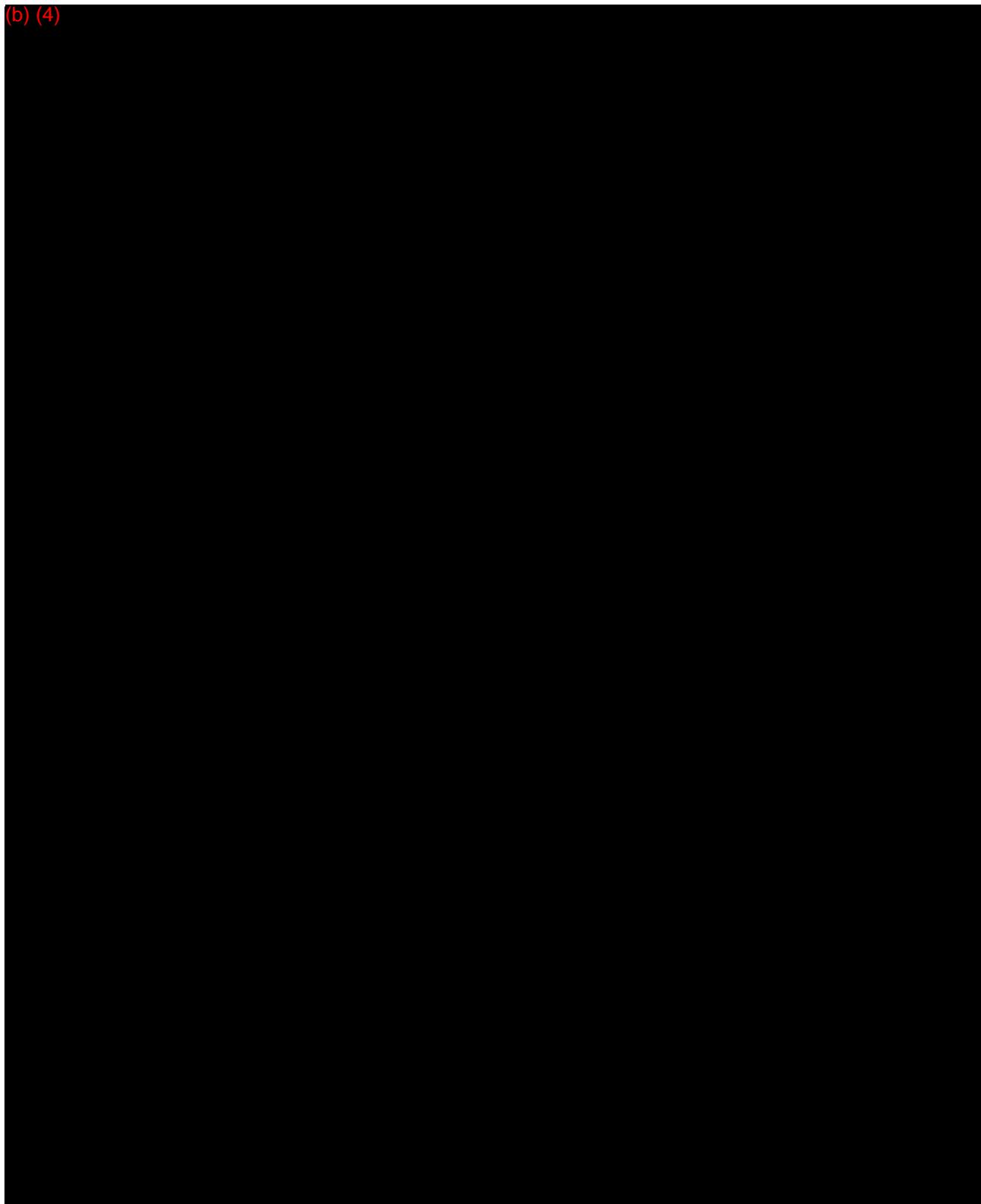
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Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XVII – Performance Testing - Bench

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Page

Page 64 of 175

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XVIII – Performance Testing - Animal

XVIII. Performance Testing - Animal

This section is not applicable as there are no animal studies associated with this submission.

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Section XIX – Performance Testing - Clinical

XIX. Performance Testing - Clinical

This section is not applicable as there are no clinical studies associated with this submission.

Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Appendix I

Appendix I

1. 510(k) number K972527 Clearance Letter
2. 510(k) number K980381 Clearance Letter
3. 510(k) number K001368 Clearance Letter
4. 510(k) number K023747 Clearance Letter
5. 510(k) number K060866 Clearance Letter
6. 510(k) number K090634 Clearance Letter
7. 510(k) number K092782 Clearance Letter
8. 510(k) number K110023 Clearance Letter



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service.

Food and Drug Administration
 9200 Corporate Boulevard
 Rockville MD 20850

Mr. Fred Schlador
 Consultant
 Quality System Consulting
 C/O Carmel Pharma AB
 1425 Cressa Court
 Carlsbad, California 92009

SEP 18 1997

Re: K972527
 Trade Name: PhaSeal™ System For Sealed Handling Of
 Chemotherapeutic AG
 Regulatory Class: II
 Product Code: LHI
 Dated: June 30, 1997
 Received: July 7, 1997

Dear Mr. Schlador:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Pre-market Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the current Good Manufacturing Practice requirement, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic (QS) inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note:

Page 2 - Mr. Schlador

this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4618. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "<http://www.fda.gov/cdrh/dsmamain.html>".

Sincerely yours,

Timothy A. Ulatowski
Director
Division of Dental, Infection Control
and General Hospital Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

27. Indications for Use Statement:

510(k) Number (if known): K972527

Device Name: PhaSeal® closed system for the preparation and administration of parenteral drugs

Indications for Use:

PhaSeal Protector 20 - Drug Vial Transfer Adapter

The Protector 20 is fitted to the drug vial and is used as a docking station between the drug vial for the parenteral drug and Injector Luer. In addition the Protector 20 equilibrates the pressure difference which occurs when fluid or air is added or removed from the drug vial. Liquid transfer takes place through tightly fitting elastomeric membranes to minimize exposure to potentially hazardous drug aerosols and spills that can occur during the reconstitution, administration and disposal processes.

PhaSeal Injector Luer – Drug Transfer Needle Device

The Injector Luer has an encapsulated cannula that is permanently locked onto a syringe using a Luer fitting. Sealed transfer of diluent, drug or air, between the single-use syringe and the various components in the system can be made via the Injector Luer in both the preparation and administration phases.

PhaSeal Connector Luer-Lock – Luer Lock Device

The Connector Luer Lock ensures a sealed connection between the single-use syringe and Injector Luer and the patient's IV line. With the help of the Connector Luer Lock, injections can be made without drug spillage.

PhaSeal Infusion Set - Intravascular Administration Set

The Infusion Set is a non-vented infusion device that has a built-in connector to be used as a way of making additions of parenteral drugs to infusion fluids in a closed system. The Infusion Set may be used to administer the infusion fluid.

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation

Patricia Casarate
(Division Sign-Off)
Division of Dental, Infection Control,
and General Hospital Devices
510(k) Number K972527

Prescription Use _____
(Per 21 CFR 801.109)

OR

Over the Counter Use



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
9200 Corporate Boulevard
Rockville, MD 20850

Mr. Britt Novén
Manager, Regulatory Affairs
Carmel Pharma AB
Box 5352
S-402 28 Göteborg, Sweden

MAR - 3 1998

Re: K980381
Trade Name: PhaSeal® closed system for the preparation
and administration of parenteral drugs
Regulatory Class: II
Product Code: LHI
Dated: January 30, 1998
Received: February 2, 1998

Dear Mr. Novén:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the current Good Manufacturing Practice requirement, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic (QS) inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does

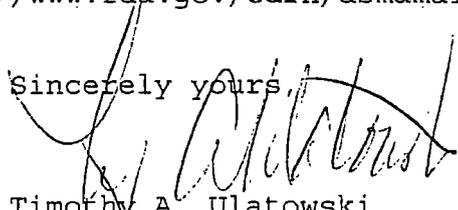
Page 2 - Mr. Novén

not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4618. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "<http://www.fda.gov/cdrh/dsmamain.html>".

Sincerely yours,



Timothy A. Ulatowski
Director
Division of Dental, Infection Control
and General Hospital Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

27. Indications for Use Statement:

510(k) Number (if known): _____

Device Name: **PhaSeal® closed system for the preparation and administration of parenteral drugs**

Indications for Use:

PhaSeal Infusion Adapter - Intravascular Administration Set

The **Infusion Adapter** serves as the connecting part between the IV bag and an external IV line. (Example IV regulators.) The **Infusion Adapter** has a built in Connector which makes it possible to admix drugs into the infusion solution using the sealed double membrane technique.

PhaSeal Protection Cap – Special accessories

The **Protection Cap** is intended to be used as a mechanical cover for the membrane in the bayonet fitting of PhaSeal devices. The Protection Cap mates with the other PhaSeal components equipped with the bayonet fitting. One end of the Protection Cap has a male bayonet fitting and in the other a female bayonet fitting.

PhaSeal Secondary Set – Intravascular Administration Set

The Secondary Set is a non-vented infusion set used when drug is handled as an admixture and is administered via Intravenous infusion. The Secondary Set has a built in Connector which makes it possible to admix drugs into the infusion solution using the sealed PhaSeal technique.

PhaSeal Extension Set - Intravascular Administration Set

The Extension Set serves as the port for bolus injection with PhaSeal if there is no Luer Lock fitting, for Connector Luer Lock in the patients IV line. The Extension Set has a built in Connector which makes it possible inject drugs into the IV line of the patient using the sealed double membrane technique.

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation

Alvina Occenta

(Division Sign-Off)
Division of Dental, Infection Control,
and General Hospital Devices

510(k) Number 1980381

Prescription Use
(Per 21 CFR 801.109)

OR

Over the Counter Use



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

MAY 12 2000

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

Kjel Andreasson
Head of Quality Assurance and
Regulatory Affairs Department
Carmel Pharma AB
Box 5352
SE-402 28 Göteborg, SWEDEN

Re: K001368
Trade Name: Protector 21, Protector 50, Protector 14,
Injection Luer Lock, and Infusion Adapter
Regulatory Class: II
Product Code: LHI
Dated: April 25, 2000
Received: May 1, 2000

Dear Sir/Madam Andreasson:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the Good Manufacturing Practice for Medical Devices: General (GMP) regulation (21 CFR Part 820) and that, through periodic GMP inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of

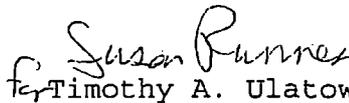
Page 2 - Sir/Madam Andreasson

the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4692. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address "<http://www.fda.gov/cdrh/dsmamain.html>".

Sincerely yours,


for Timothy A. Ulatowski

Director
Division of Dental, Infection Control,
and General Hospital Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

Exhibit 3 - Indications for Use Statement

Device Name: **PhaSeal®** - a System for Closed handling of Parenteral Drugs

PhaSeal Protector 21 - Drug Vial Transfer Adapter

The **Protector 21** is fitted to the drug vial and is used as a docking station between the drug vial for the parenteral drug and Injector. In addition the Protector equilibrates the pressure difference which occurs when fluid or air is added or removed from the drug vial. Liquid transfer takes place through tightly fitting elastomeric membranes to minimize exposure to potentially hazardous drug aerosols and spills that can occur during the reconstitution, administration and disposal processes.

PhaSeal Protector 50 - Drug Vial Transfer Adapter

The **Protector 50** is fitted to the drug vial and is used as a docking station between the drug vial for the parenteral drug and Injector. In addition the Protector equilibrates the pressure difference which occurs when fluid or air is added or removed from the drug vial. Liquid transfer takes place through tightly fitting elastomeric membranes to minimize exposure to potentially hazardous drug aerosols and spills that can occur during the reconstitution, administration and disposal processes.

PhaSeal Protector 14 - Drug Vial Transfer Adapter

The **Protector 14** is fitted to the drug vial and is used as a docking station between the drug vial for the parenteral drug and Injector. In addition the Protector equilibrates the pressure difference which occurs when fluid or air is added or removed from the drug vial. Liquid transfer takes place through tightly fitting elastomeric membranes to minimize exposure to potentially hazardous drug aerosols and spills that can occur during the reconstitution, administration and disposal processes.

PhaSeal Injector Luer Lock – Drug Transfer Needle Device

The **Injector Luer Lock** is designed with an encapsulated single lumen cannula which can be assembled to an external device equipped with Luer lock fitting, such as a disposable syringe or an IV administration set of the users choice. The other end of Injector Luer Lock is sealed with a thermoplastic elastomeric membrane. The bayonet fitting allows the two elastomeric membranes to be mated together. Sealed transfer between the various components of the system can be made via the Injector Luer Lock in the preparation phase as well as the administration phase.

PhaSeal Infusion Adapter – Intravascular Administration Set

The **Infusion Adapter** serves as the connecting part between the IV bag and an external IV line (example IV regulators). The **Infusion Adapter** has a built-in Connector which makes it possible to admix drugs into the infusion solution using the sealed double membrane technique.

Patricia Curran
 (Division Sign-Off)
 Division of Dental, Infection Control,
 and General Hospital Devices
 510(k) Number K 001368



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

NOV 15 2002

Mr. Kjell Andreasson
Vice President, QA/RA
Carmel Pharma AB
Box 5352
SE-402 28 Göteborg,
SWEDEN

Re: K023747

Trade/Device Name: PhaSeal®
Regulation Number: 21 CFR 880.5440
Regulation Name: Intravascular Administration Set
Regulatory Class: II
Product Code: LHI
Dated: November 1, 2002
Received: November 8, 2002

Dear Mr. Andreasson:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

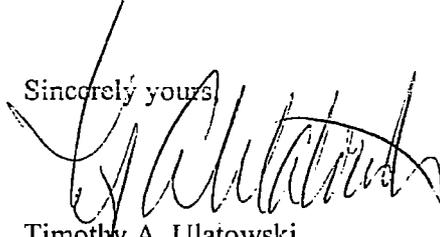
Page 2 – Mr. Andreasson

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 21 CFR Part 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4618. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,



Timothy A. Ulatowski
Director
Division of Anesthesiology, General Hospital,
Infection Control and Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

K023747

Exhibit 3 - Indications for Use Statement

Device Name: PhaSeal® - a System for Closed handling of Parenteral Drugs

Infusion Adapter

The **Infusion Adapter** serves as a the connecting part between the IV bag and an external IV line (e.g. IV regulators). The **Infusion Adapter** has a built in Connector which makes it possible to admix drugs into the infusion solution using the sealed PhaSeal double membrane technique.



(Division Sign-Off)
Division of Anesthesiology, General Hospital,
Infection Control, Dental Devices

510(k) Number: K023747



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

APR 28 2006

Mr. Kjell Andreasson
Vice President Quality Assurance and Regulatory Affairs
Carmel Pharma AB
Aminogatan 30, Molndal, Box 5352
Goteborg, Sweden SE 402 28

Re: K060866
Trade/Device Name: **PhaSeal Y-Site Line**-Intravascular Administration Set
Regulation Number: 880.5440
Regulation Name: Intravascular Administration Set
Regulatory Class: II
Product Code: LHI
Dated: March 27, 2006
Received: March 30, 2006

Dear Mr. Andreasson:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Page 2 – Mr. Andreasson

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0115. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



Chiu Lin, Ph.D.

Director

Division of Anesthesiology, General Hospital,

Infection Control and Dental Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

Exhibit 3

Indications for Use

510(k) Number (if known): K060866

Device name: **PhaSeal Y-site Line – Intravascular Administration Set**

Indications for use:

The Y-site Line serves as the port for IV administration with PhaSeal if there is no Luer Lock fitting, for Connector Luer Lock in the patients IV line. The Y-site Line has a built in Connector which makes it possible to administer drugs into the IV line of the patient using the sealed double membrane technique.

Prescription Use: Yes
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use: No
(21 CFR 801 Subpart C)

PLEASE DO NOT WRITE BELOW THIS LINE- CONTINUE ON ANOTHER PAGE IF NEEDED

Concurrence of CDRH, Office of Device evaluation (ODE)

Anthony D. [Signature]

Medical Physiology, General Hospital,
San Gabriel, Dental Devices
K060866



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

MAR 23 2009

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

Mr. Kjell Andreasson
President Quality Assurance and Regulatory Affairs
Carmel Pharma AB
Box 5352
SE 402 28 Goteborg
SWEDEN

Re: K090634
Trade/Device Name: Protector P14, P21, P28 and P50
Regulation Number: 21 CFR 880.5440
Regulation Name: Intravascular Administration Set
Regulatory Class: II
Product Code: LHI
Dated: February 20, 2009
Received: March 9, 2009

Dear Mr. Andreasson:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register:

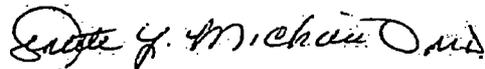
Page 2 – Mr. Andreasson

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Center for Devices and Radiological Health's (CDRH's) Office of Compliance at (240) 276-0115. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding postmarket surveillance, please contact CDRH's Office of Surveillance and Biometric's (OSB's) Division of Postmarket Surveillance at 240-276-3474. For questions regarding the reporting of device adverse events (Medical Device Reporting (MDR)), please contact the Division of Surveillance Systems at 240-276-3464. You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



Ginette Y. Michaud, M.D.
Acting Director
Division of Anesthesiology, General Hospital,
Infection Control and Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

Attachment 1

Indications for Use Statement

510(k)
Number
(if known)

Device Name Protector P14, P21, P28 and P50

Indications for Use The indication for use is reconstitution and transfer of drug solutions from one container to another while minimizing exposure to potentially hazardous drugs aerosols and spills that can occur during the reconstitution, administration and disposal process.

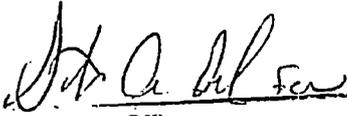
PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use Yes
(Per 21 CFR 801.109)

OR

Over-The-Counter Use: No



Division Sign-Off)
Division of Anesthesiology, General Hospital
Infection Control, Dental Devices

Page 1 of 1

510(k) Number: 1K090634
Page 85 of 175



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
10903 New Hampshire Avenue
Document Control Room W-066-0609
Silver Spring, MD 20993-0002

Mr. Kjell Andreasson
President Quality Assurance and Regulatory Affairs
Carmel Pharma AB
Aminogatan 30
SE 431 53 Molndal
SWEDEN

DEC - 7 2009

Re: K092782
Trade/Device Name: Injector Luer N34
Injector Luer Lock N35
Injector Luer Lock N35C
Connector Luer Lock C35
Connector Luer Lock C45
Regulation Number: 21 CFR 880.5440
Regulation Name: Intravascular Administration Set
Regulatory Class: II
Product Code: LHI
Dated: September 4, 2009
Received: September 10, 2009

Dear Mr. Andreasson:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Page 2- Mr. Andreasson

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

 For
Susan Runner, D.D.S., M.A.
Acting Division Director
Division of Anesthesiology, General Hospital,
Infection Control and Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

Attachment 1

Indications for Use Statement

510(k)
Number
(if known)

Device Name Injector Luer N34
 Injector Luer Lock N35
 Injector Luer Lock N35C
 Connector Luer Lock C33
 Connector Luer Lock C45

Indications for Use The indication for use of the PhaSeal system and included components are reconstitution and transfer of drug solutions from one container to another while minimizing exposure to potentially hazardous drugs aerosols and spills that can occur during the reconstitution, administration and disposal process.

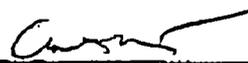
PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use: Yes
(Per 21 CFR 801.109)

OR

Over-The-Counter Use: No



(Division Sign-Off)
Division of Anesthesiology, General Hospital
Infection Control, Dental Devices

510(k) Number: K002732



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
10903 New Hampshire Avenue
Document Control Room - WO66-G609
Silver Spring, MD 20993-0002

Mr. Kjell Andreasson
Manager, Regulatory Affairs
Carmel Pharma AB
Aminogatan 30
Mölnadal
SWEDEN S431 53

APR 12 2011

Re: K110023
Trade/Device Name: Infusion Adapter C100
Regulation Number: 21 CFR 880.5440
Regulation Name: Intravascular Administration Set
Regulatory Class: II
Product Code: LHI
Dated: March 1, 2011
Received: March 8, 2011

Dear Mr. Andreasson:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Page 2 - Mr. Andreasson

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to

<http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

<http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Anthony Watson, B.S., M.S., M.B.A.
Director

Division of Anesthesiology, General Hospital,
Infection Control and Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

Attachment 1

Indications for Use Statement

510(k)
Number
(if known)

K110023

Device Name Infusion Adapter C100

**Indications
for Use**

The indication for use is admixing of drug into an IV container and administration/transfer of drug from the container to an external IV line, while minimizing exposure to potentially hazardous drugs aerosols and spills that can occur during the admixing, administration and disposal process.

PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF
NEEDED

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use: Yes
(Per 21 CFR 801.109)

OR

Over-The-Counter Use: No

 4/8/11

(Division Sign-Off)
Division of Anesthesiology, General Hospital
Infection Control and Dental Devices
510(k) Number: _____

K110023 Page 1 of 1

SEP. 13. 2012 10:05AM

NO. 9213 P. 1/3



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
10903 New Hampshire Avenue
Document Control Room -WO66-G609
Silver Spring, MD 20993-0002

Mr. John Roberts
Regulatory Affairs Specialist
Becton, Dickinson and Company - Medical Surgical Systems
1 Becton Drive
Franklin Lakes, New Jersey 07417

SEP 12 2012

Re: K120384
Trade/Device Name: PhaSeal® - A Closed System Transfer Device
Regulation Number: 21 CFR 880.5440
Regulation Name: Intravascular Administration Set
Regulatory Class: II
Product Code: LHI
Dated: August 23, 2012
Received: August 24, 2012

Dear Mr. Roberts:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

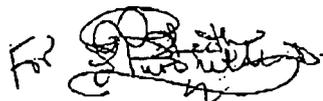
Page 2- Mr. Roberts

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Anthony D. Watson, B.S., M.S., M.B.A.
Director

Division of Anesthesiology, General Hospital
Infection Control and Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Indications for Use Statement

510(k) Number (if known): _____

Device Name: PhaSeal® – A Closed System Transfer Device

Indications for Use:

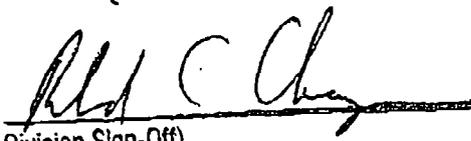
The PhaSeal system is a closed system drug transfer device (CSTD) that mechanically prohibits the transfer of environmental contaminants into the system and the escape of drug or vapor concentrations outside the system, thereby minimizing individual and environmental exposure to drug vapor, aerosols and spills. The PhaSeal Protector also prevents microbial ingress.

Prescription Use X AND/OR Over-The-Counter Use _____
(Part 21 CFR 801 Subpart D) (21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON ANOTHER
PAGE OF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Page ___ of ___



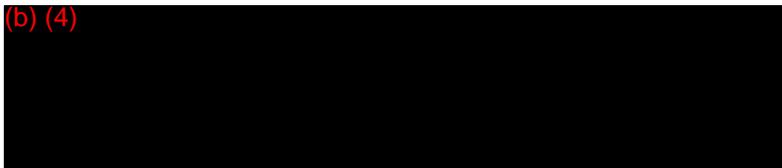
(Division Sign-Off)
Division of Anesthesiology, General Hospital
Infection Control, Dental Devices

510(k) Number: K120384

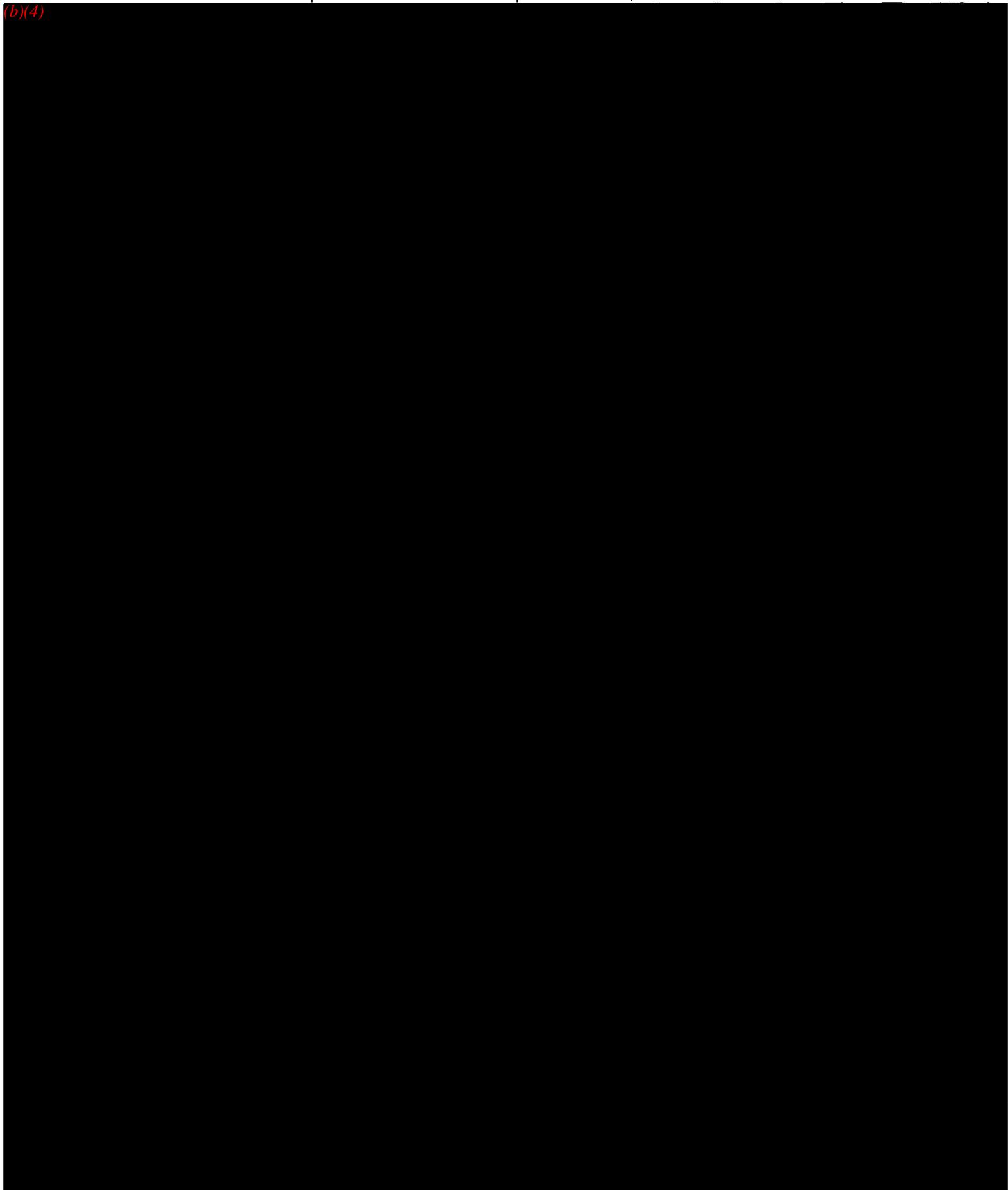
Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Appendix II

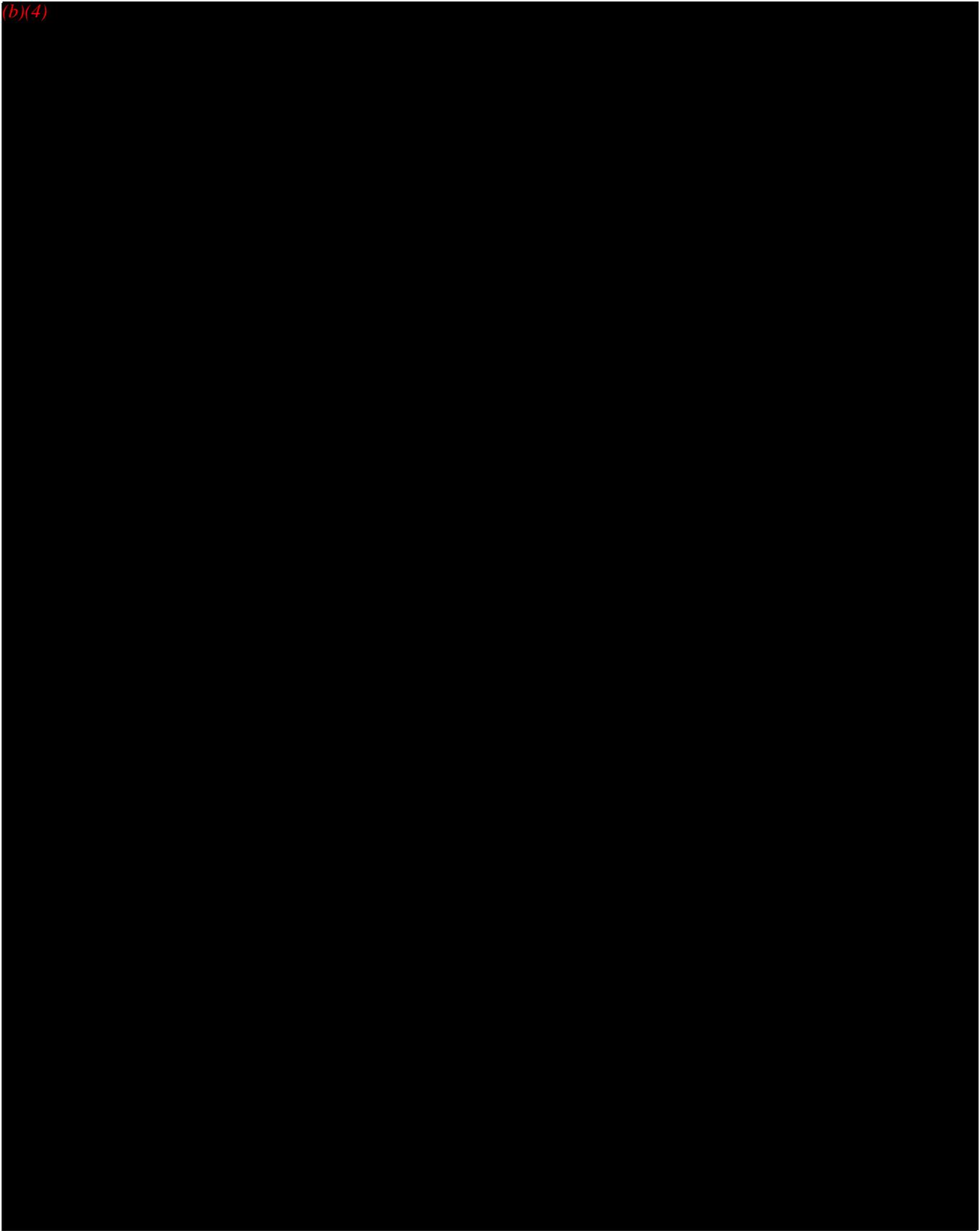
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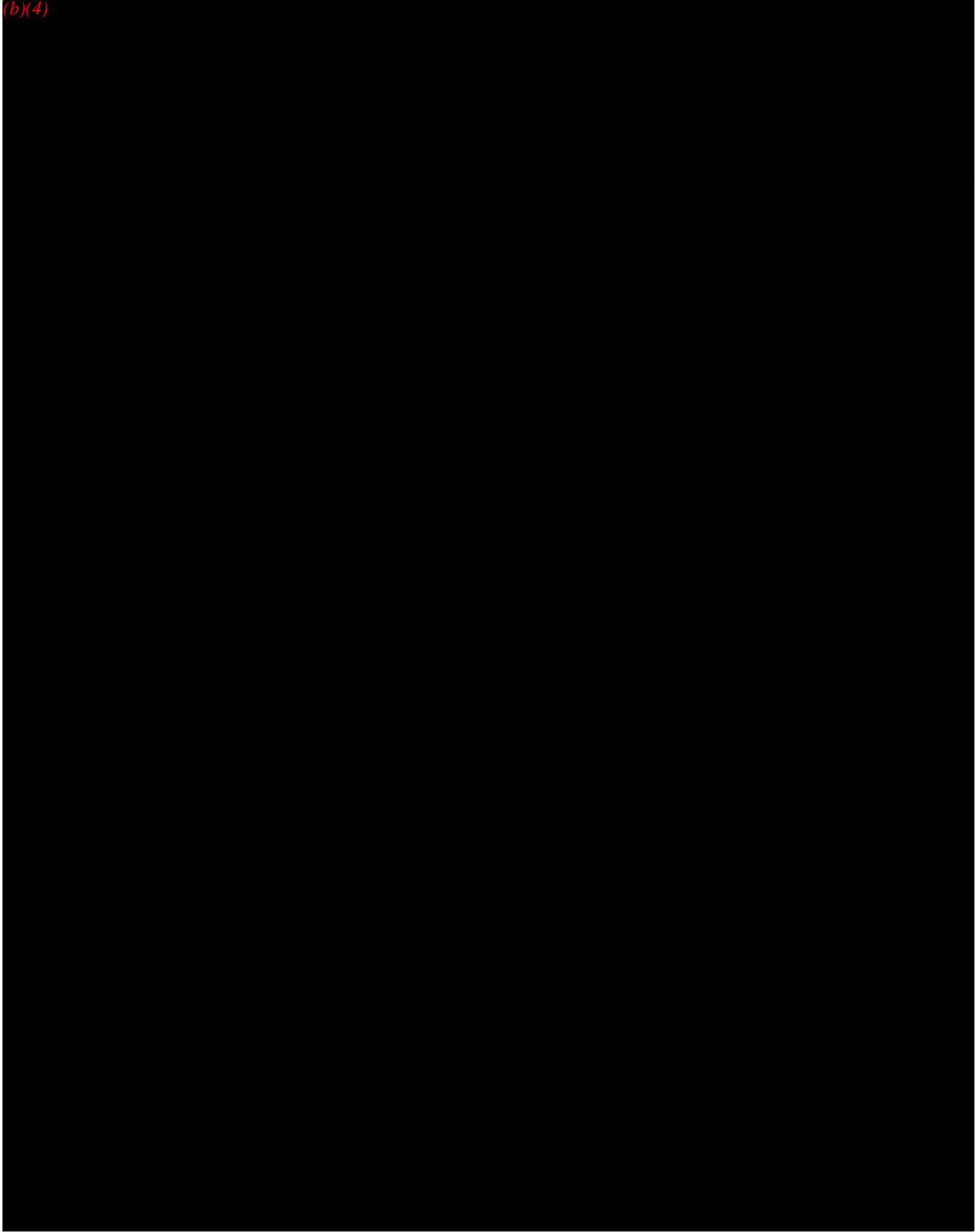
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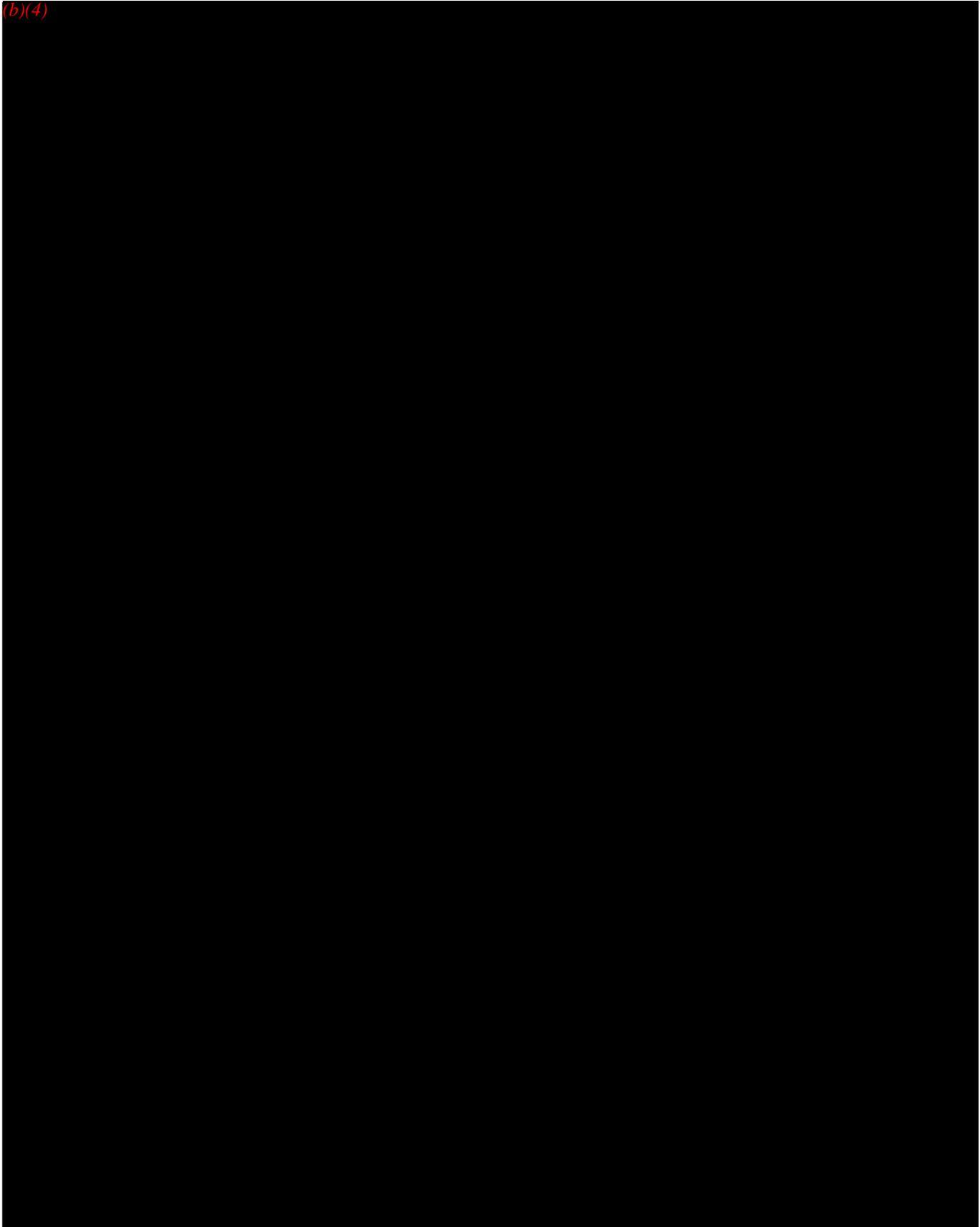
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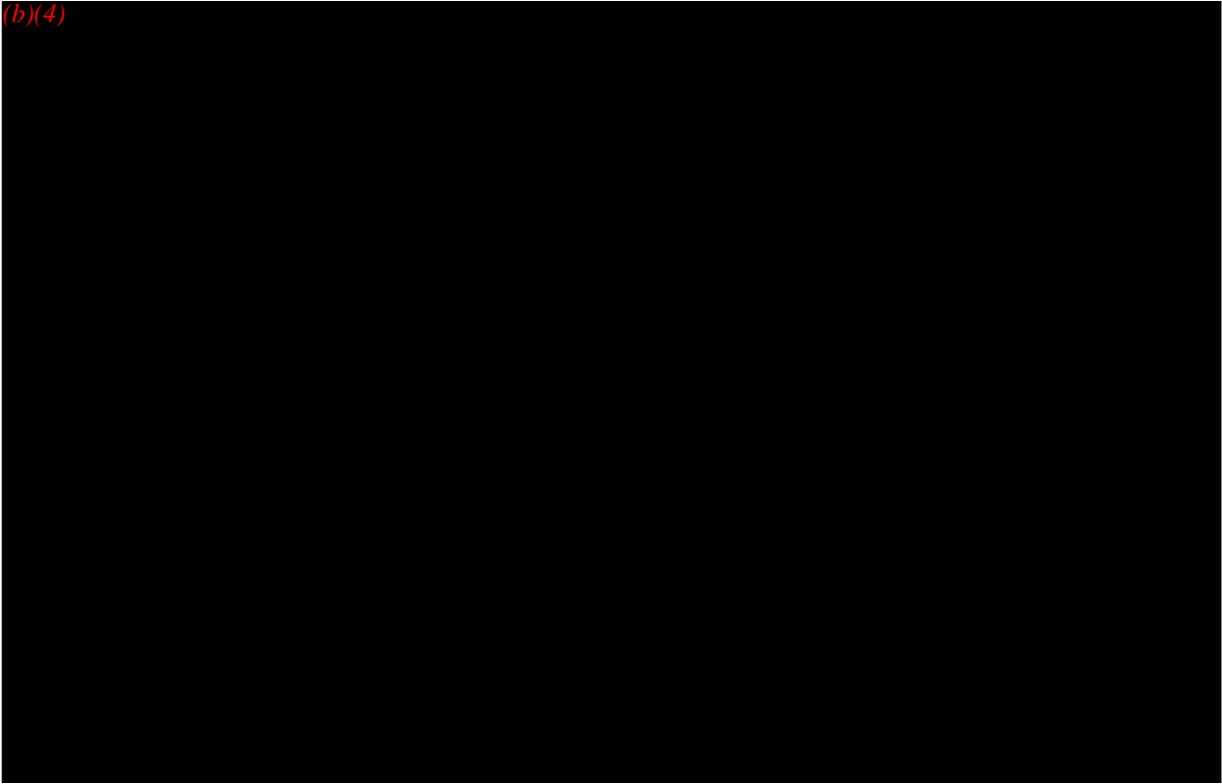
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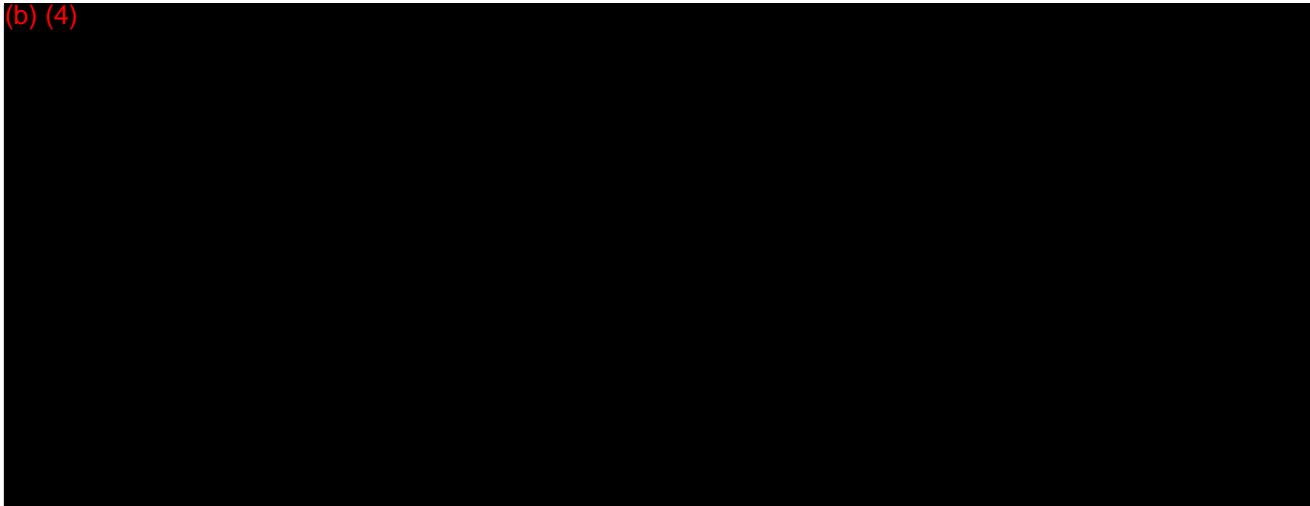


Becton Dickinson Medical Surgical
Franklin Lakes, New Jersey 07417

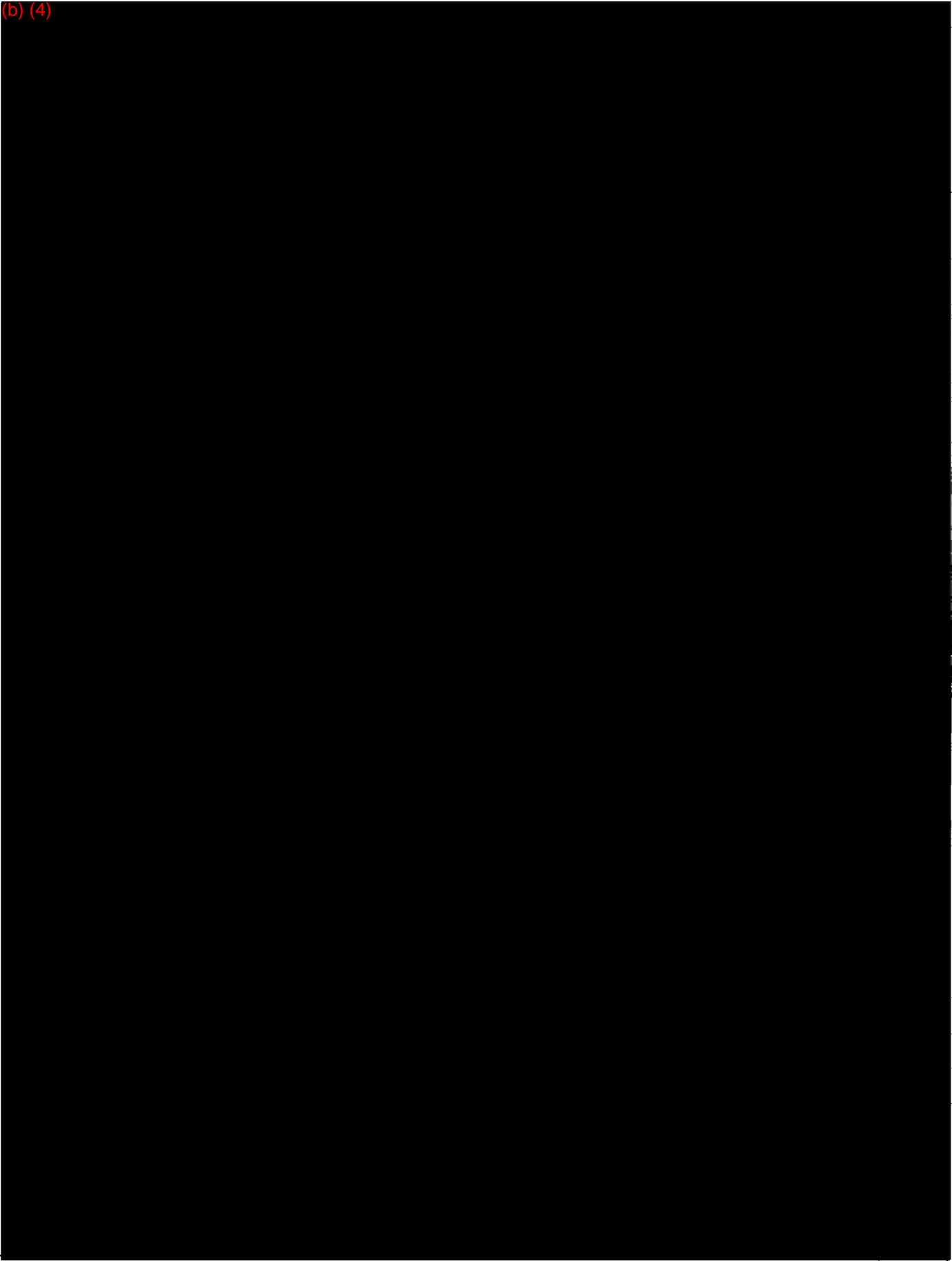
BD PhaSeal Closed System Transfer Device
Pre-Market Notification - Traditional
Appendix III

Appendix III

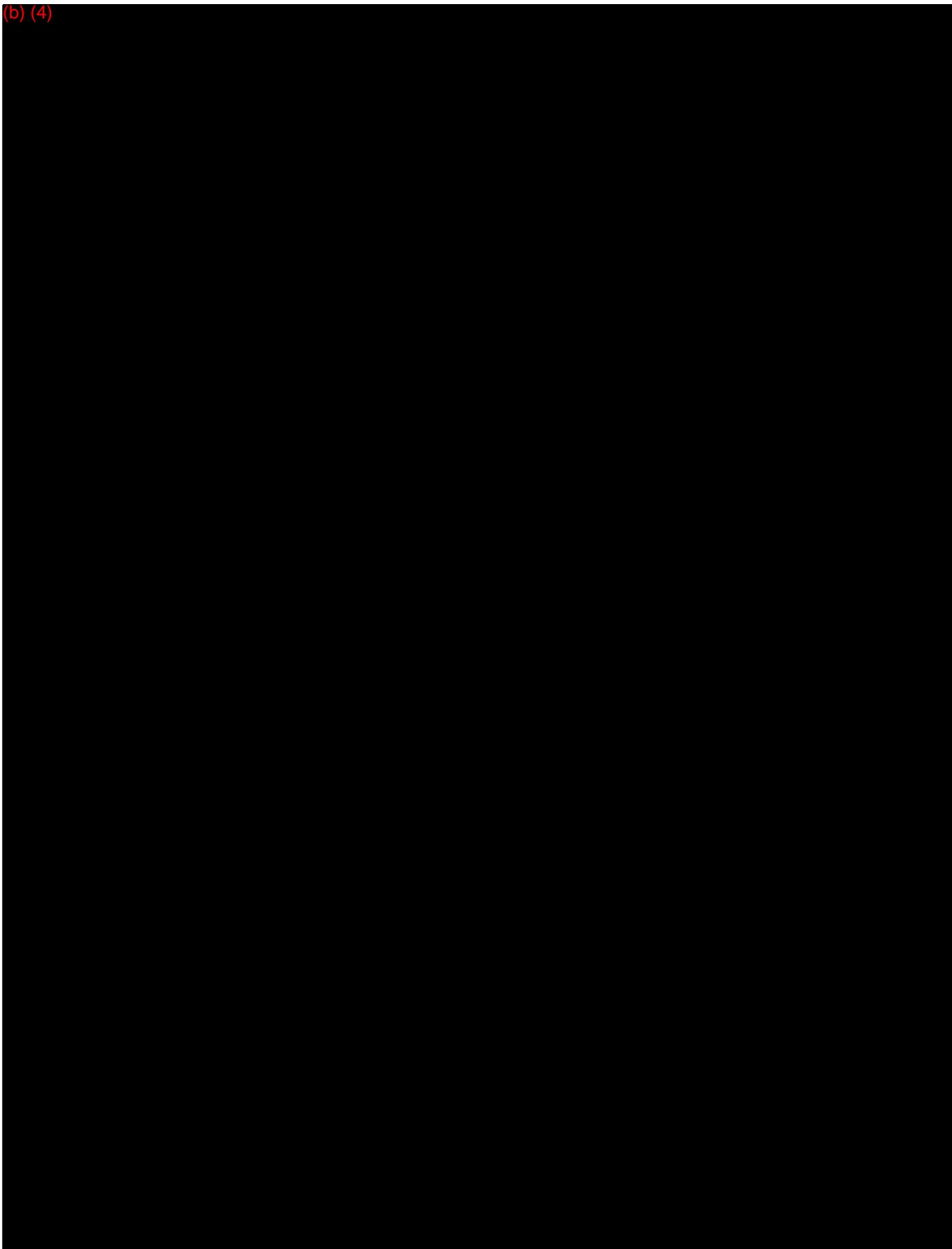
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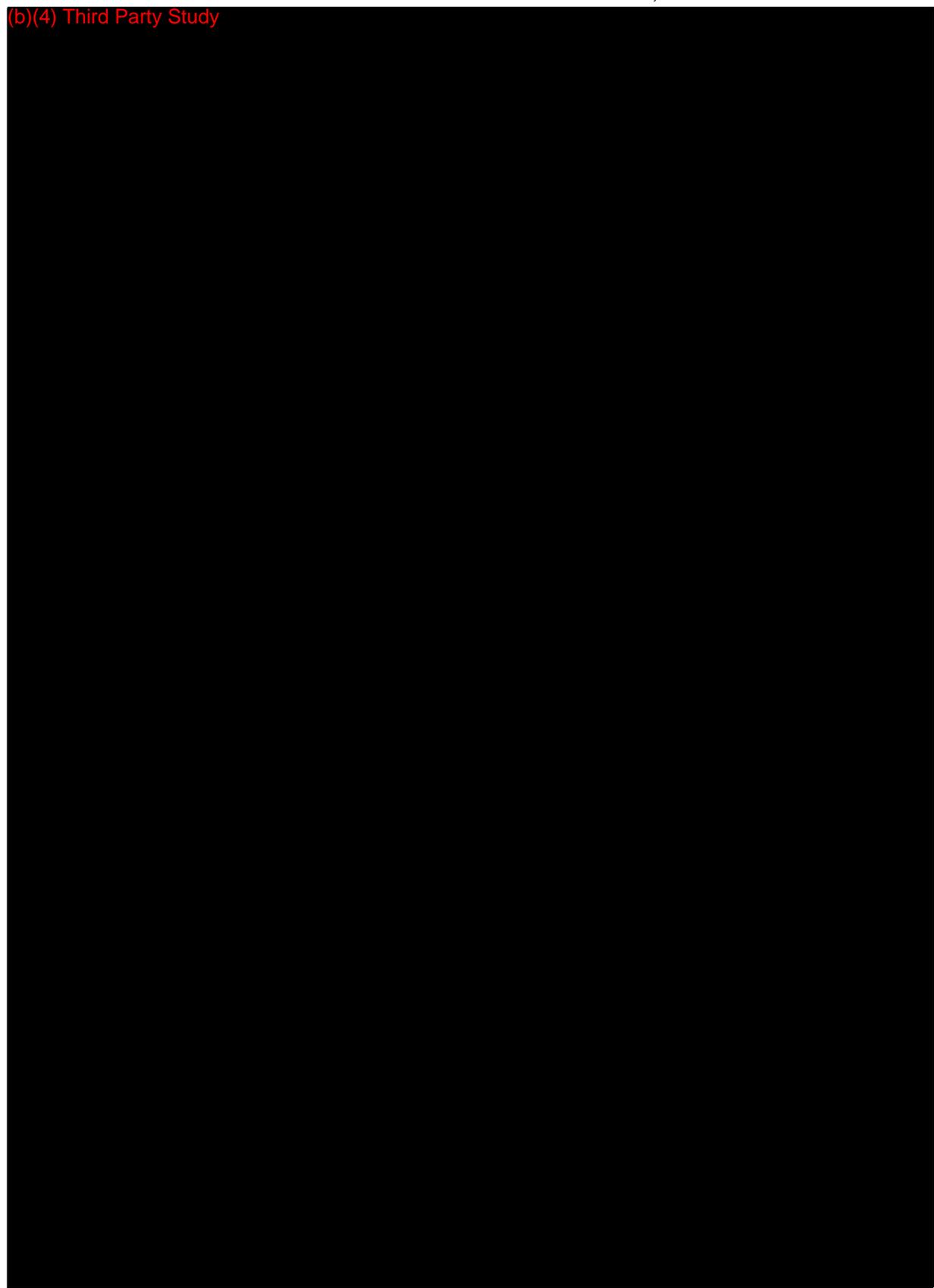
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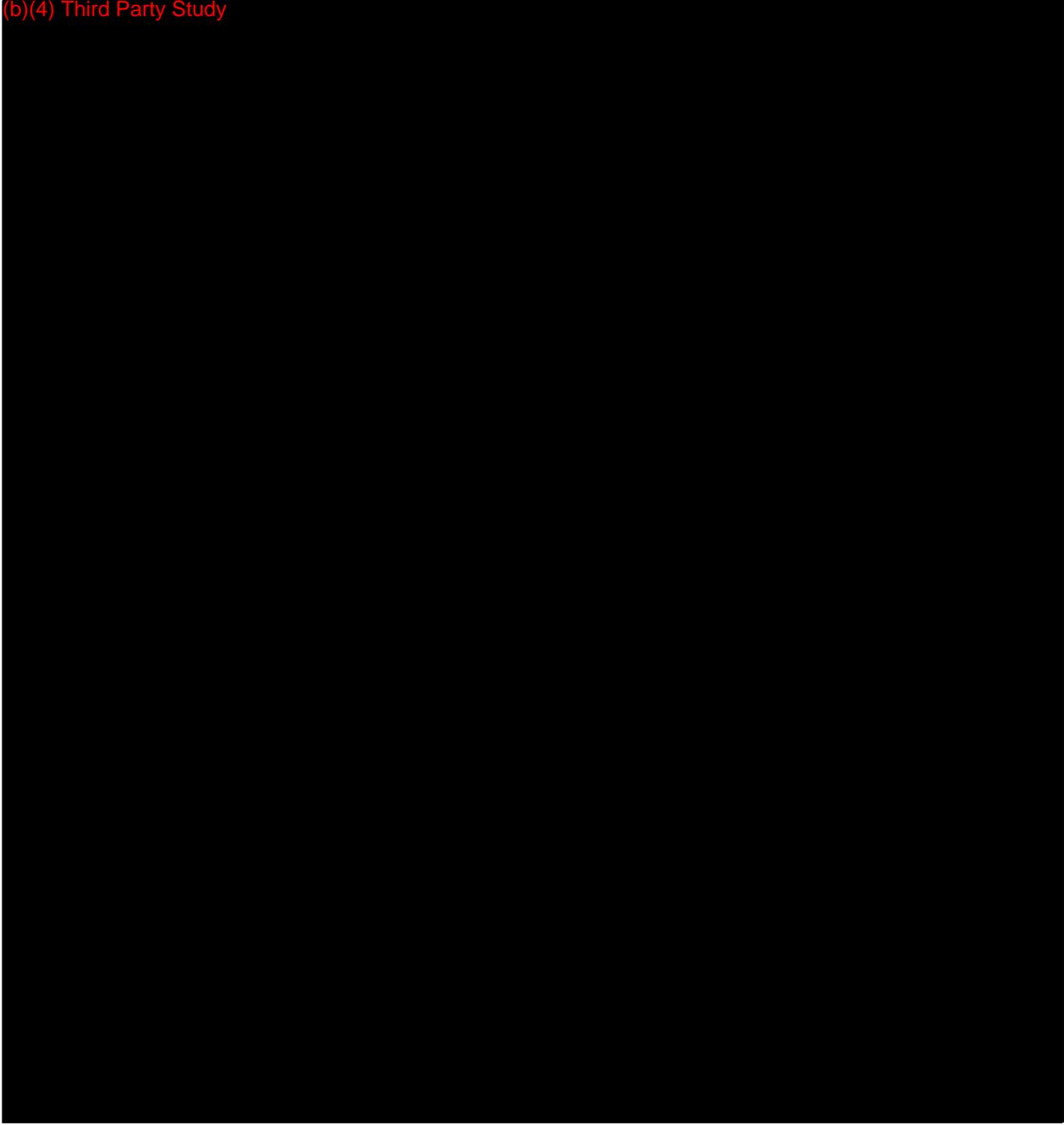
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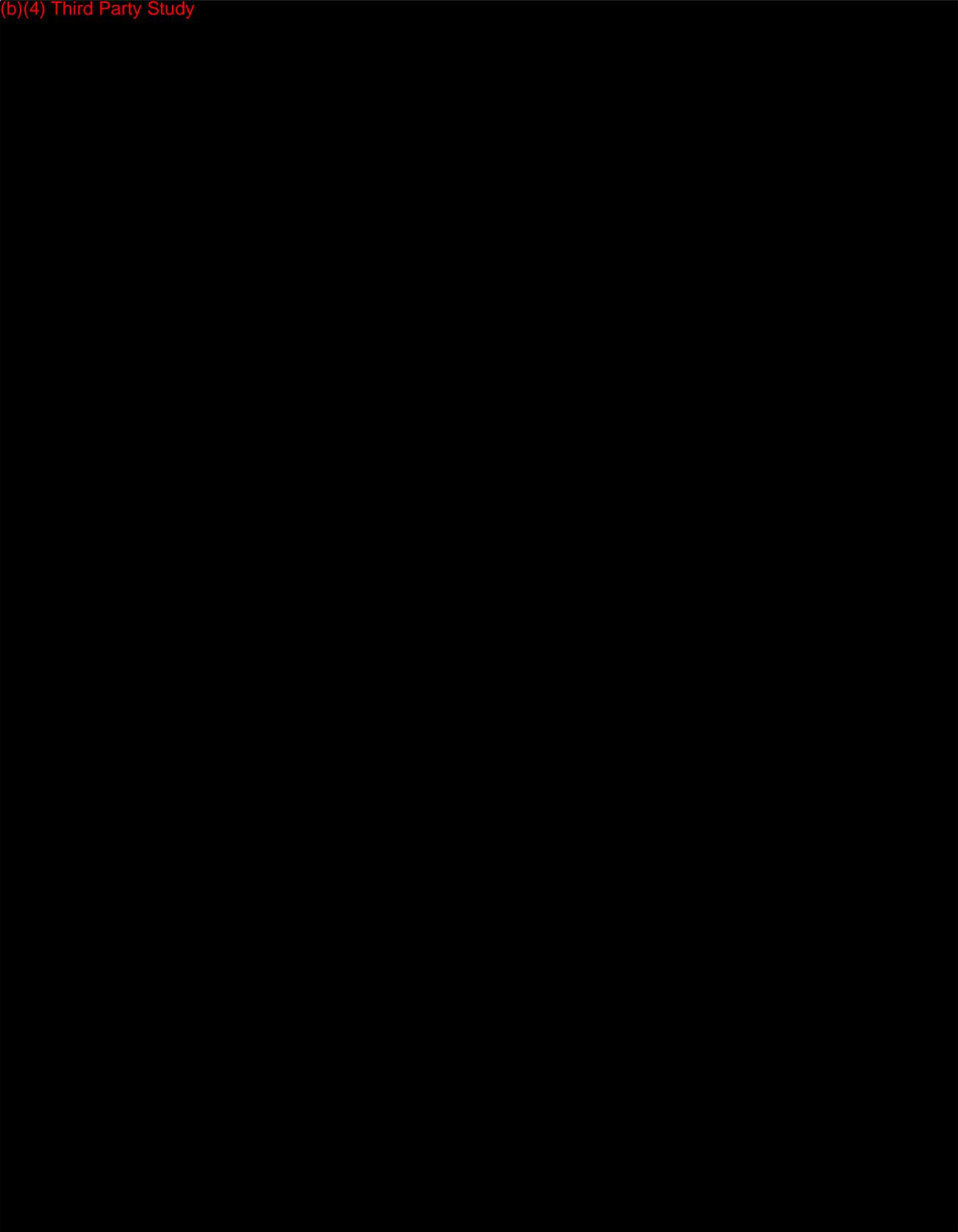
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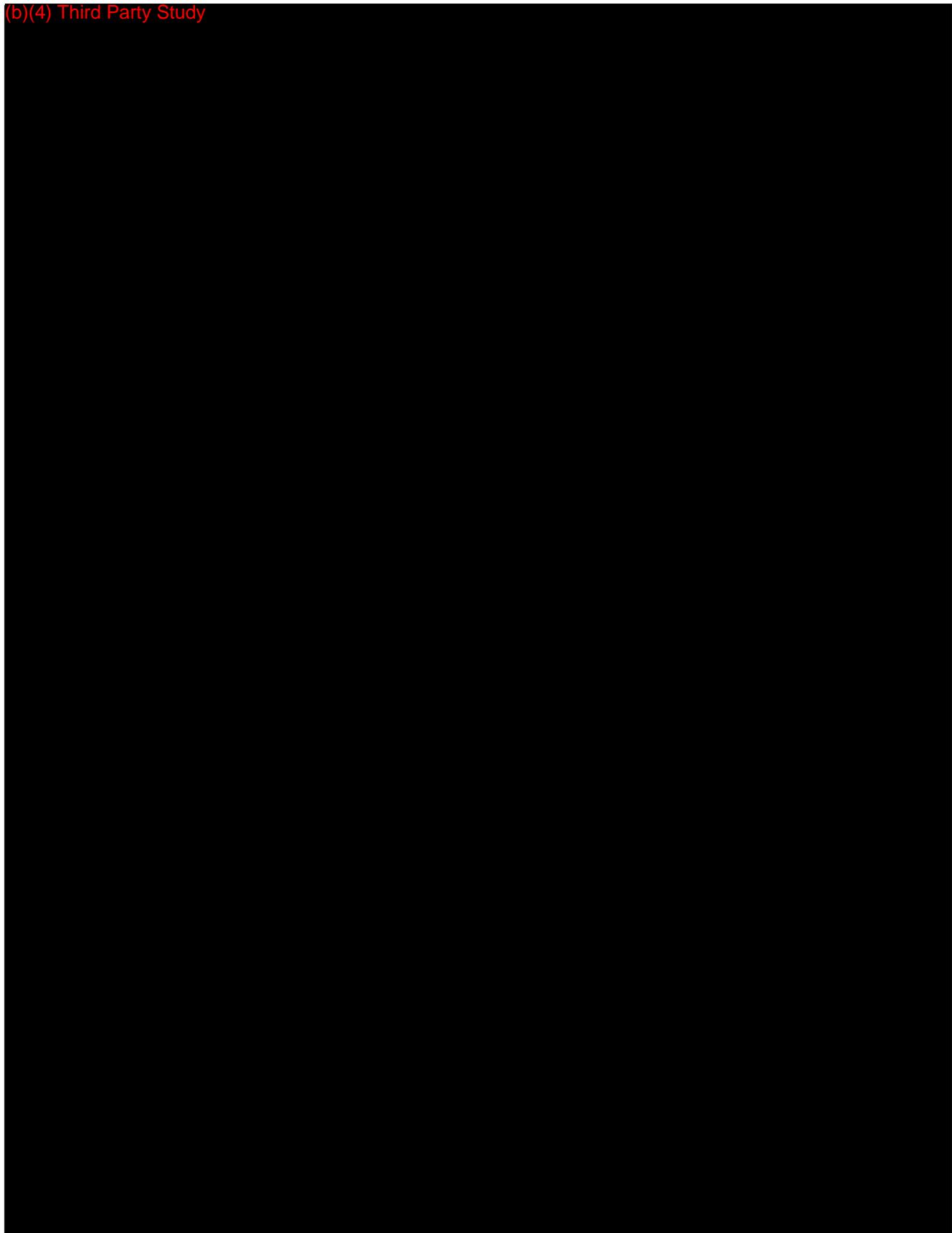
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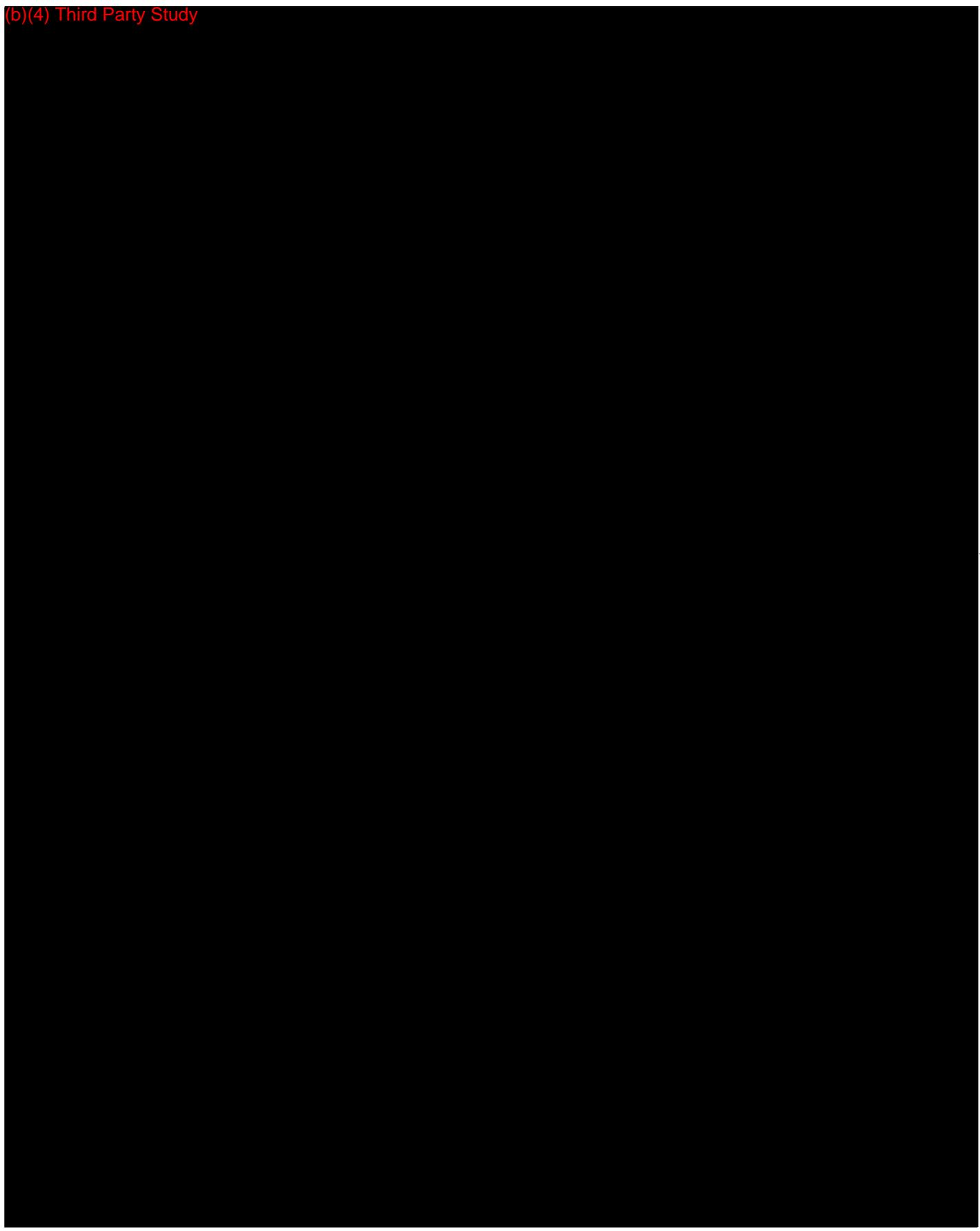
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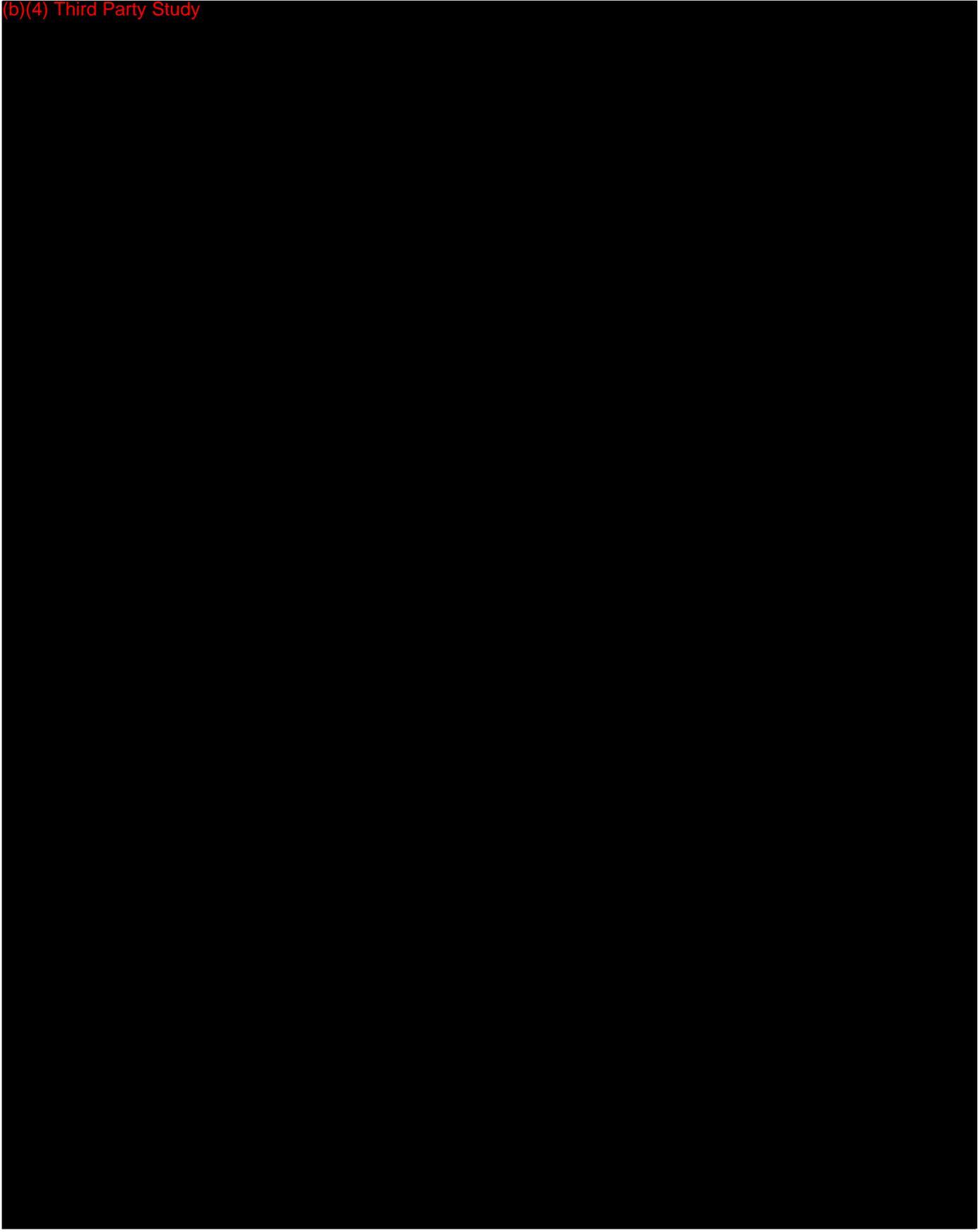
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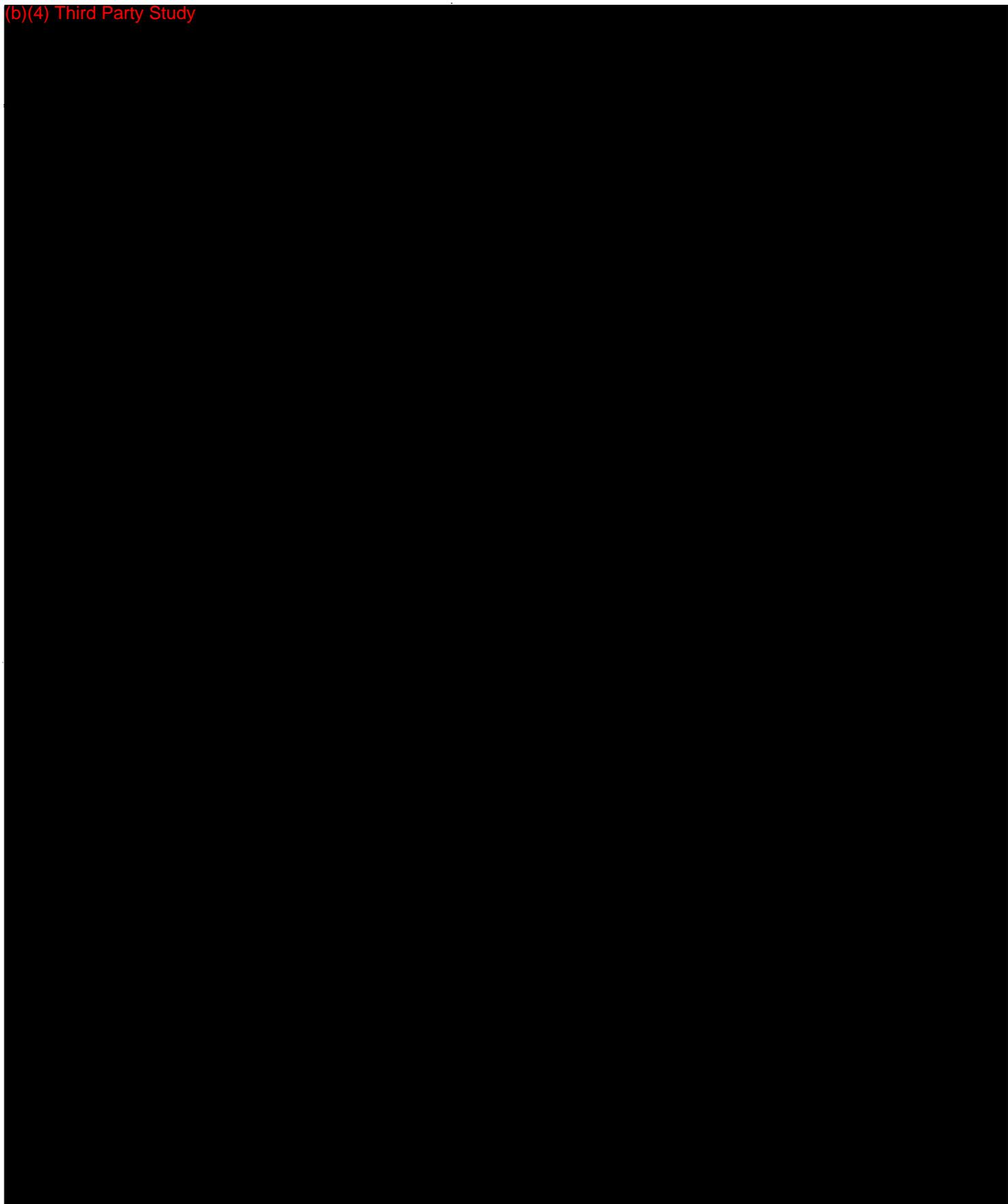
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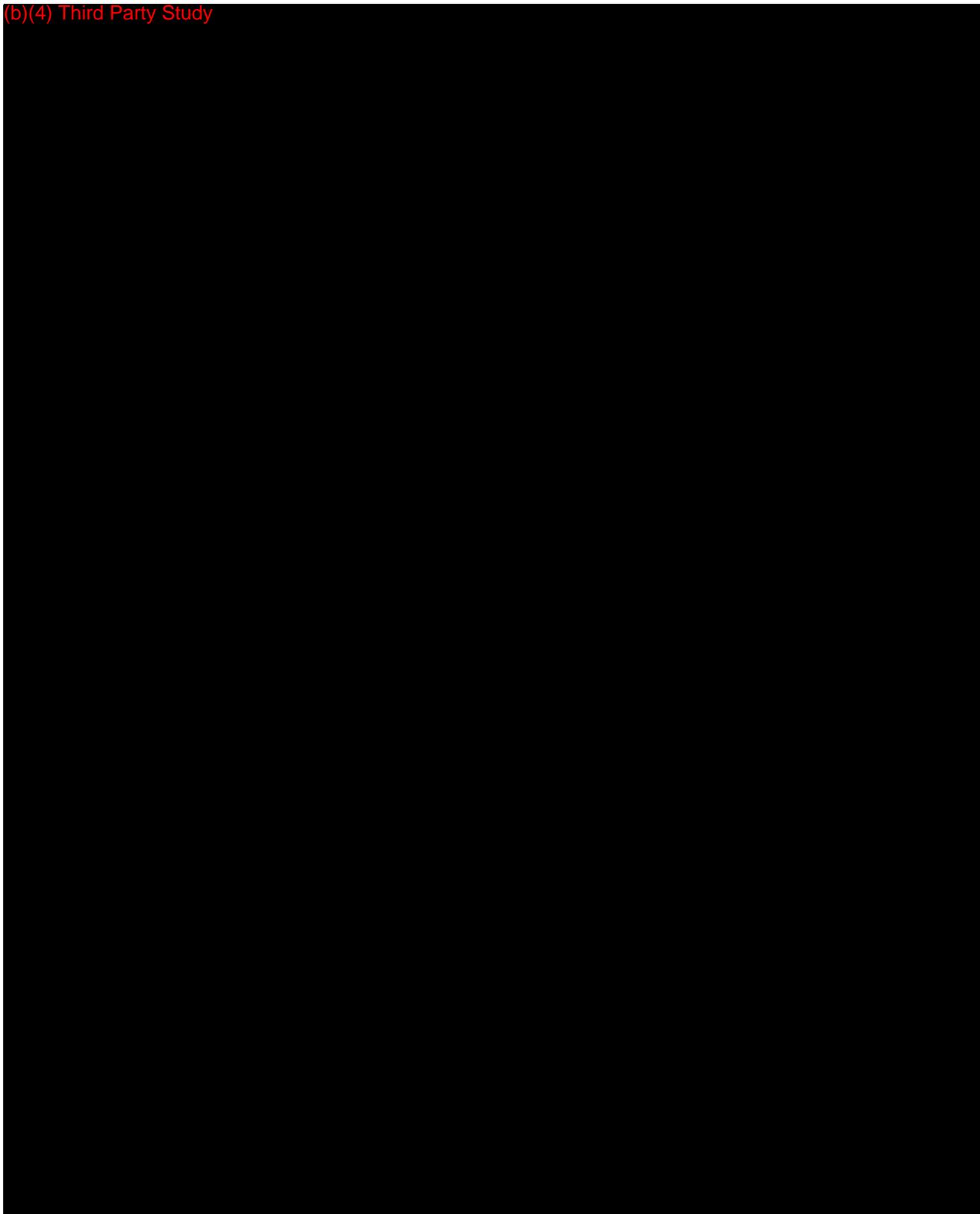
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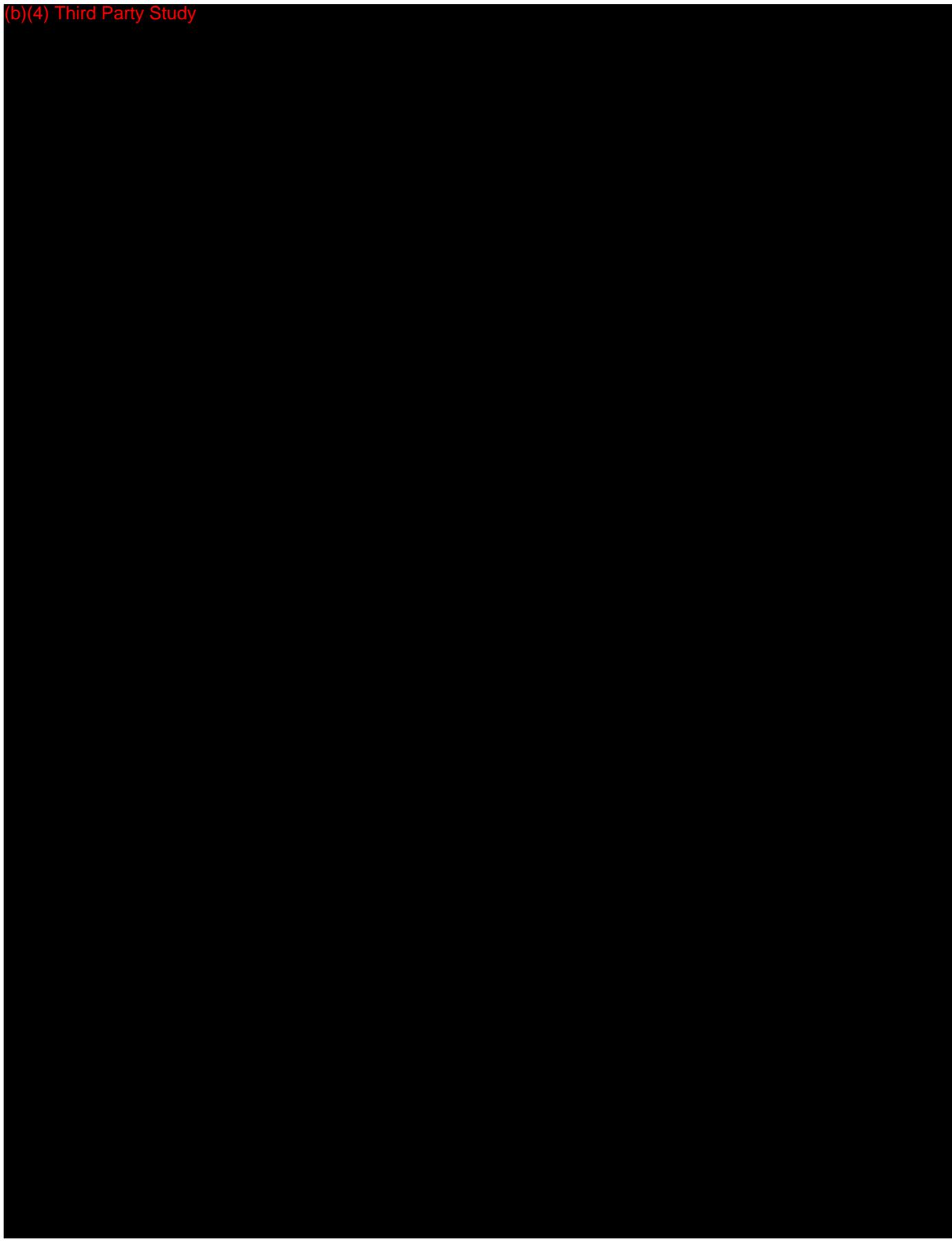
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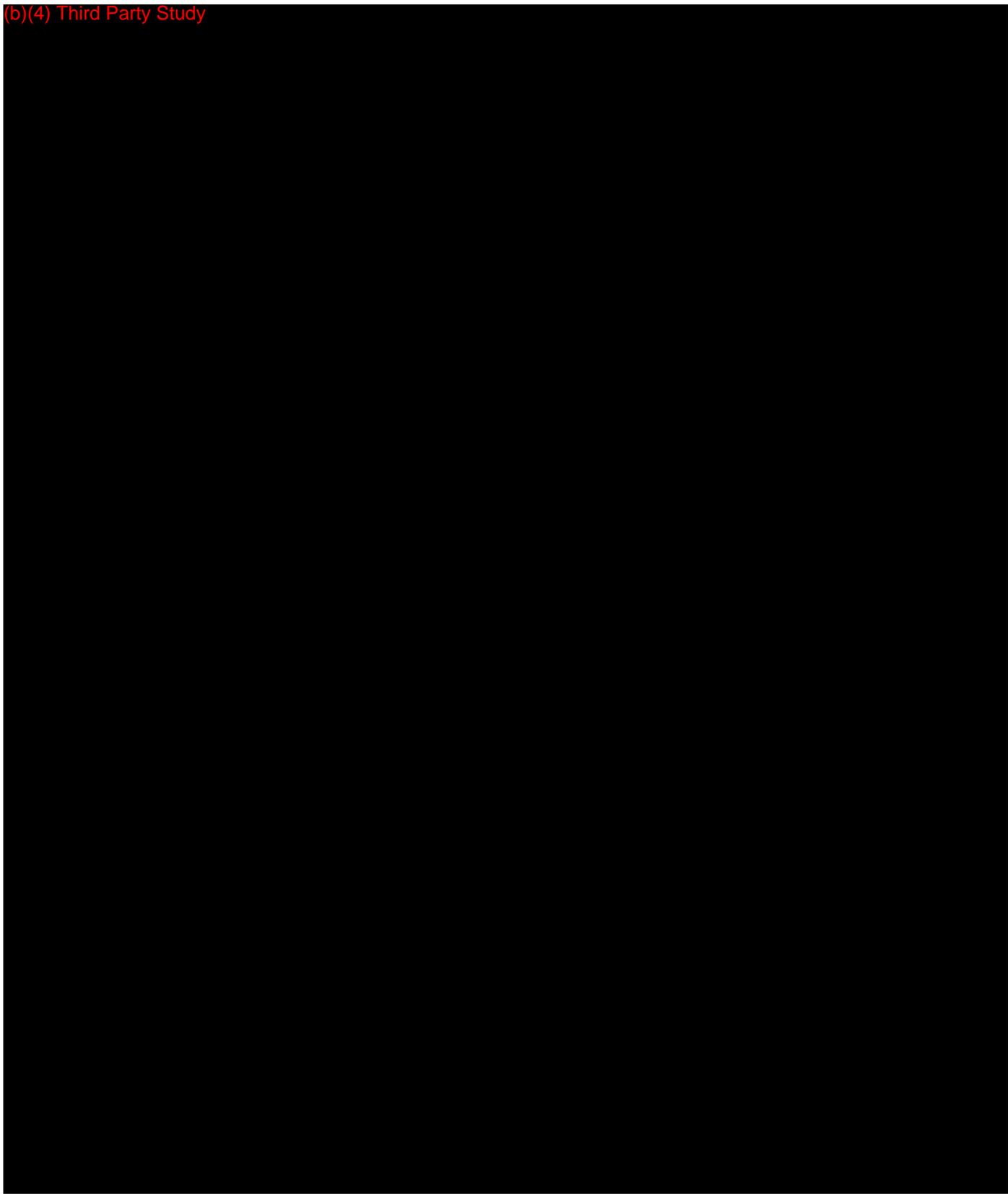
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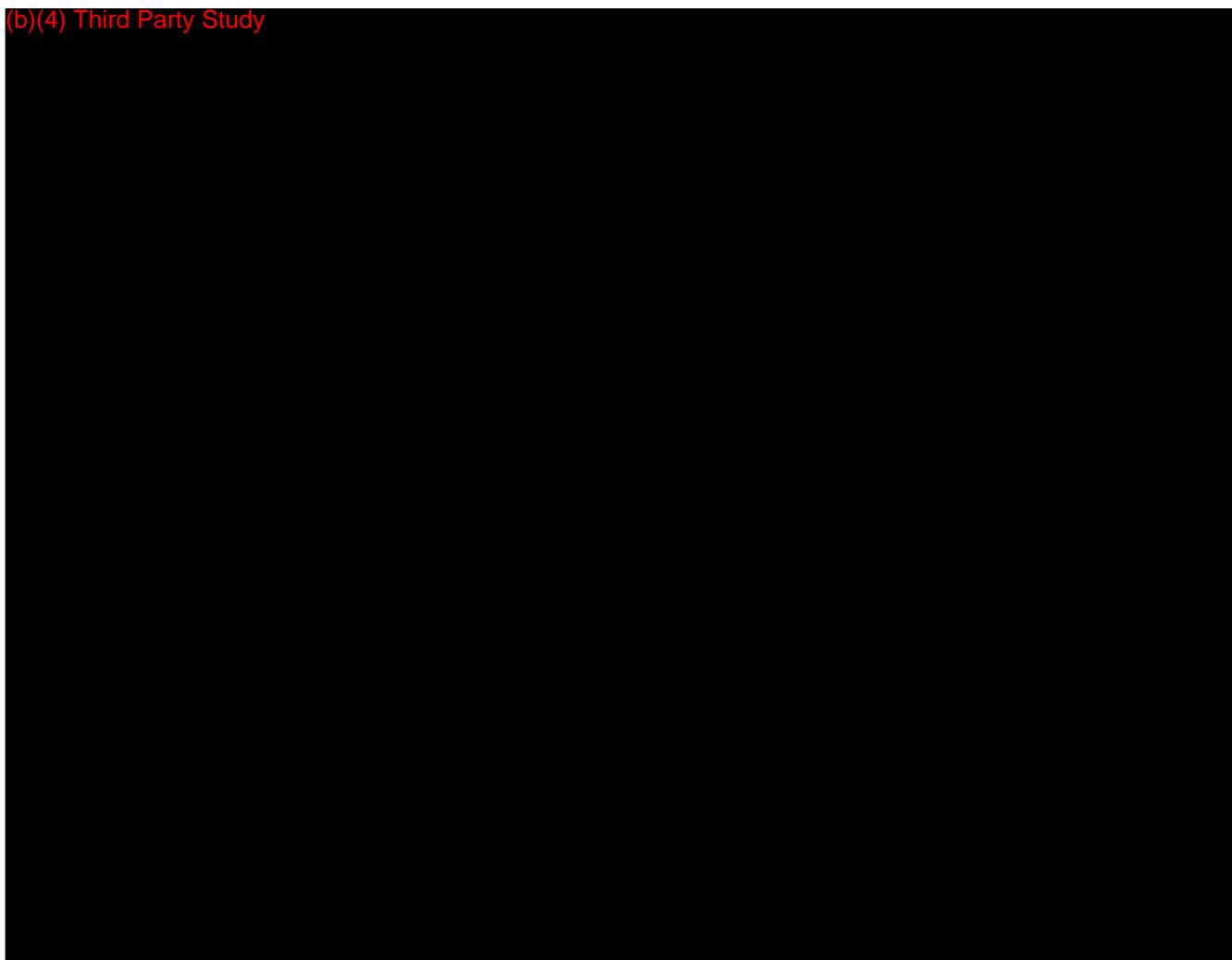
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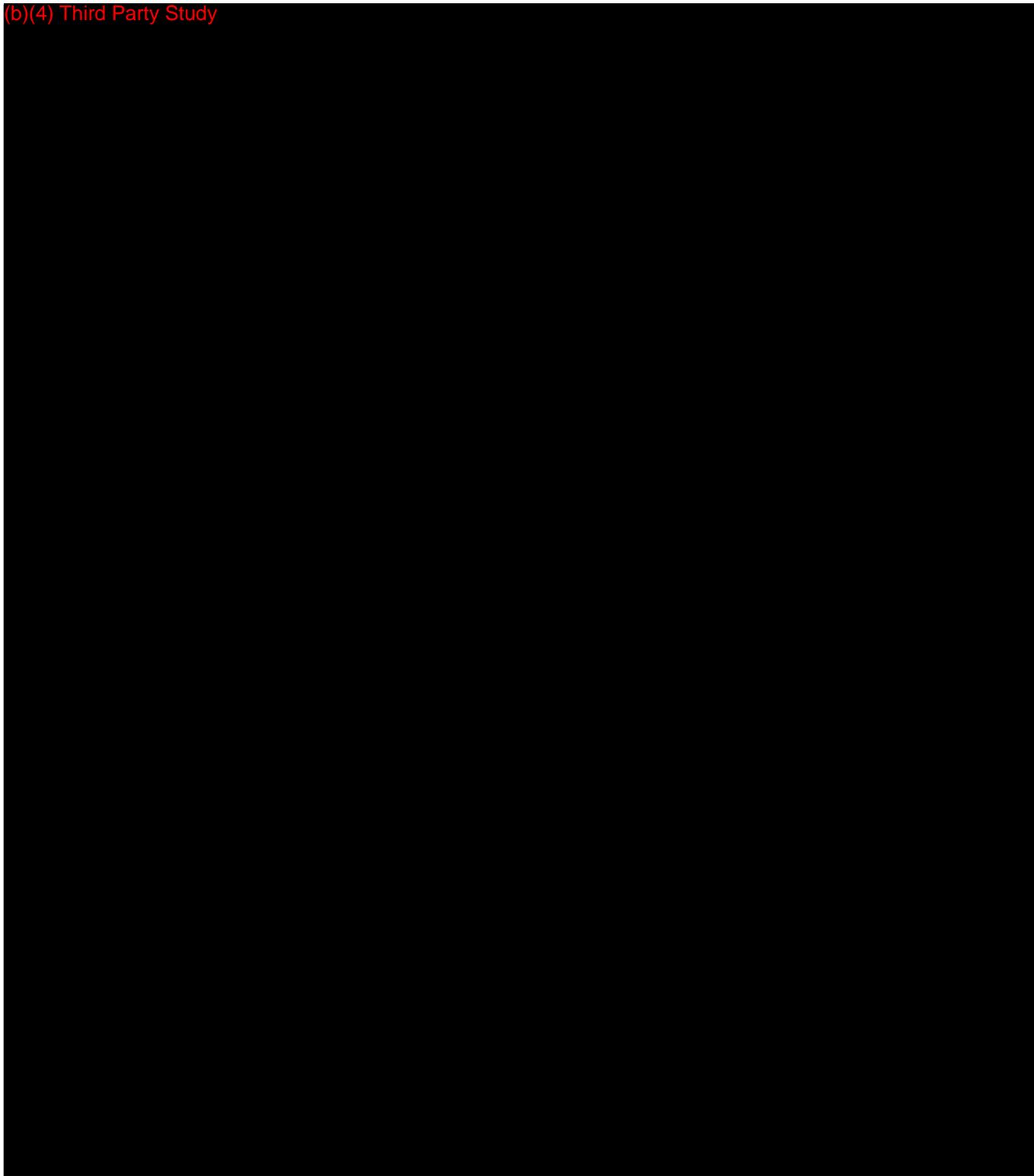
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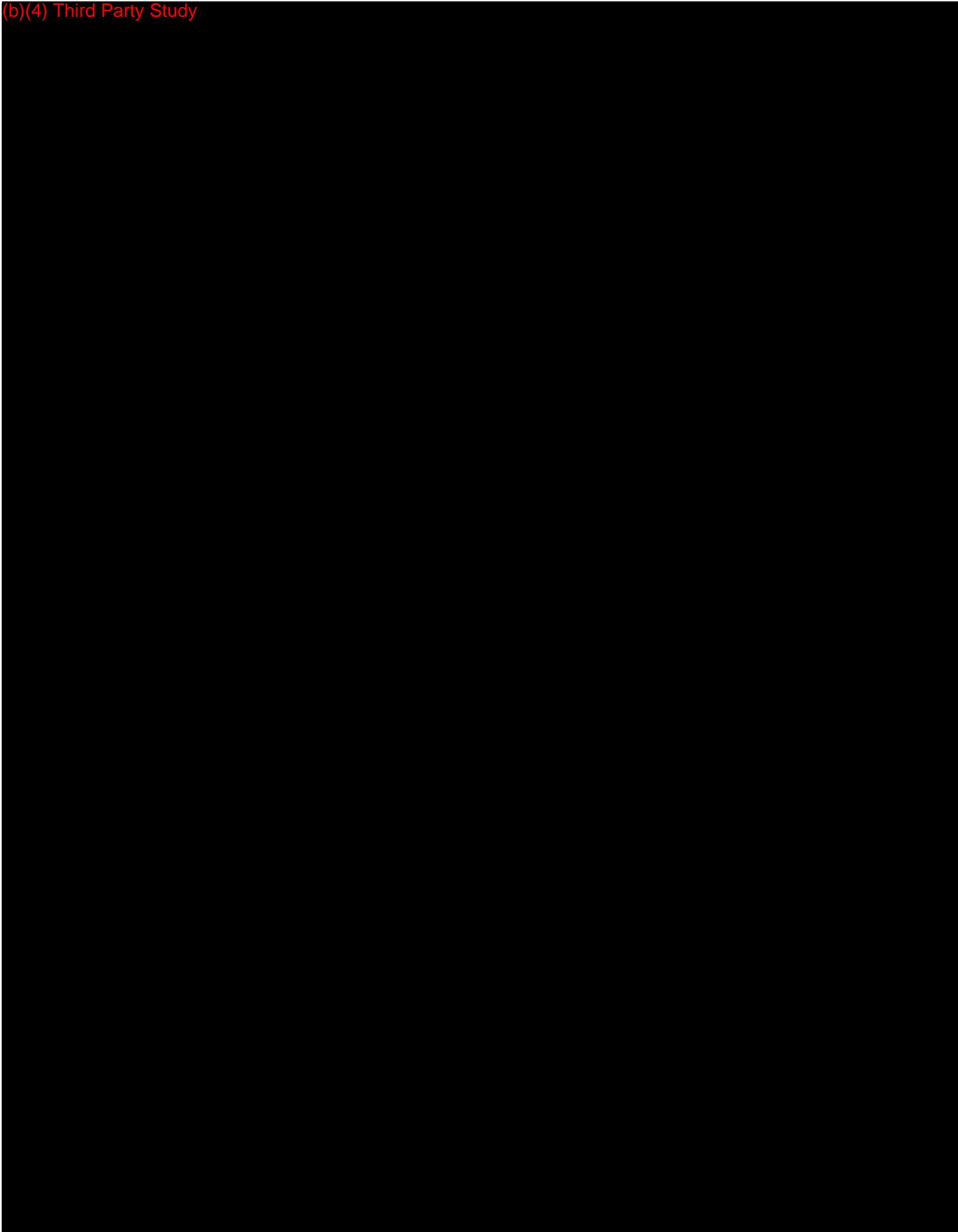
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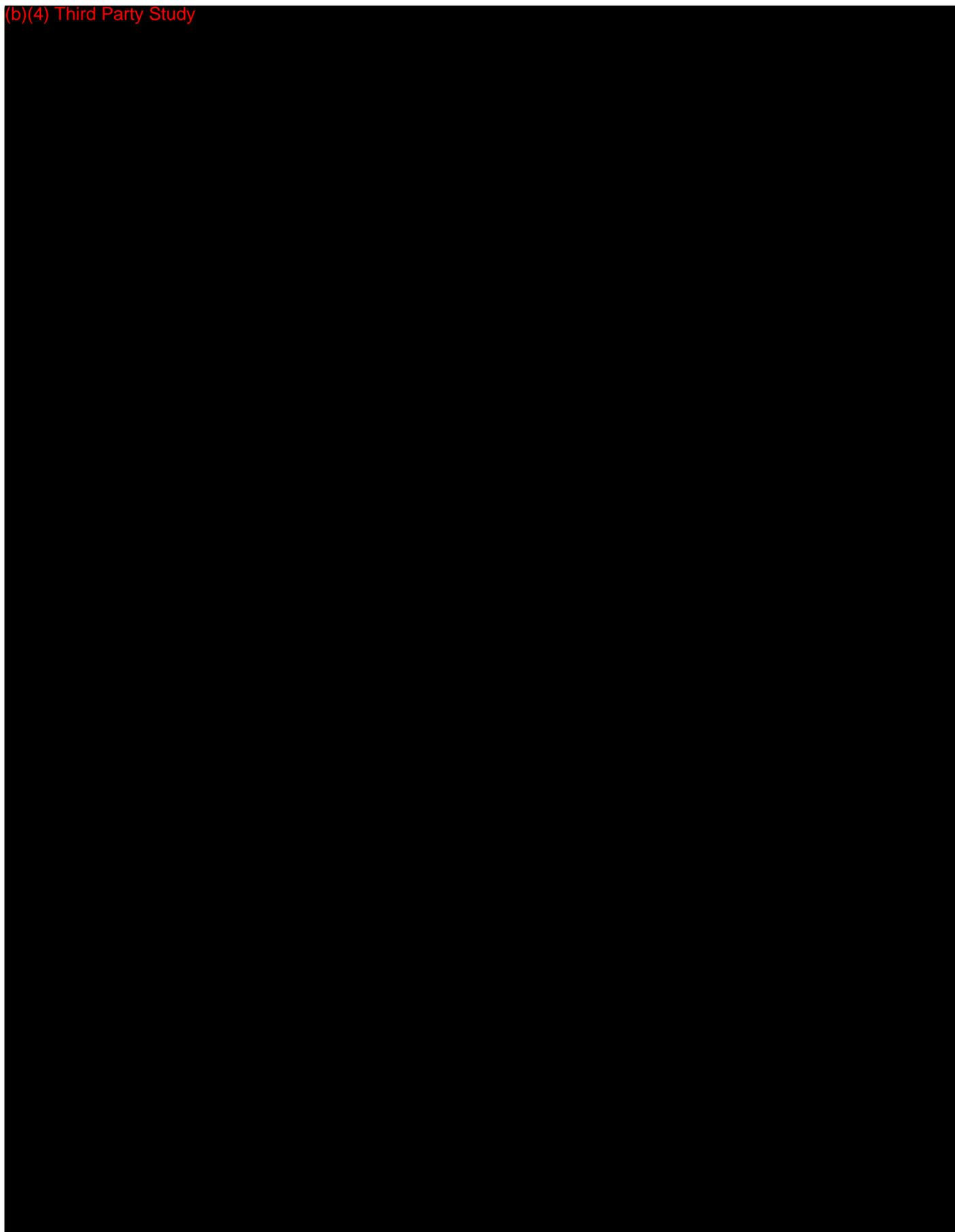


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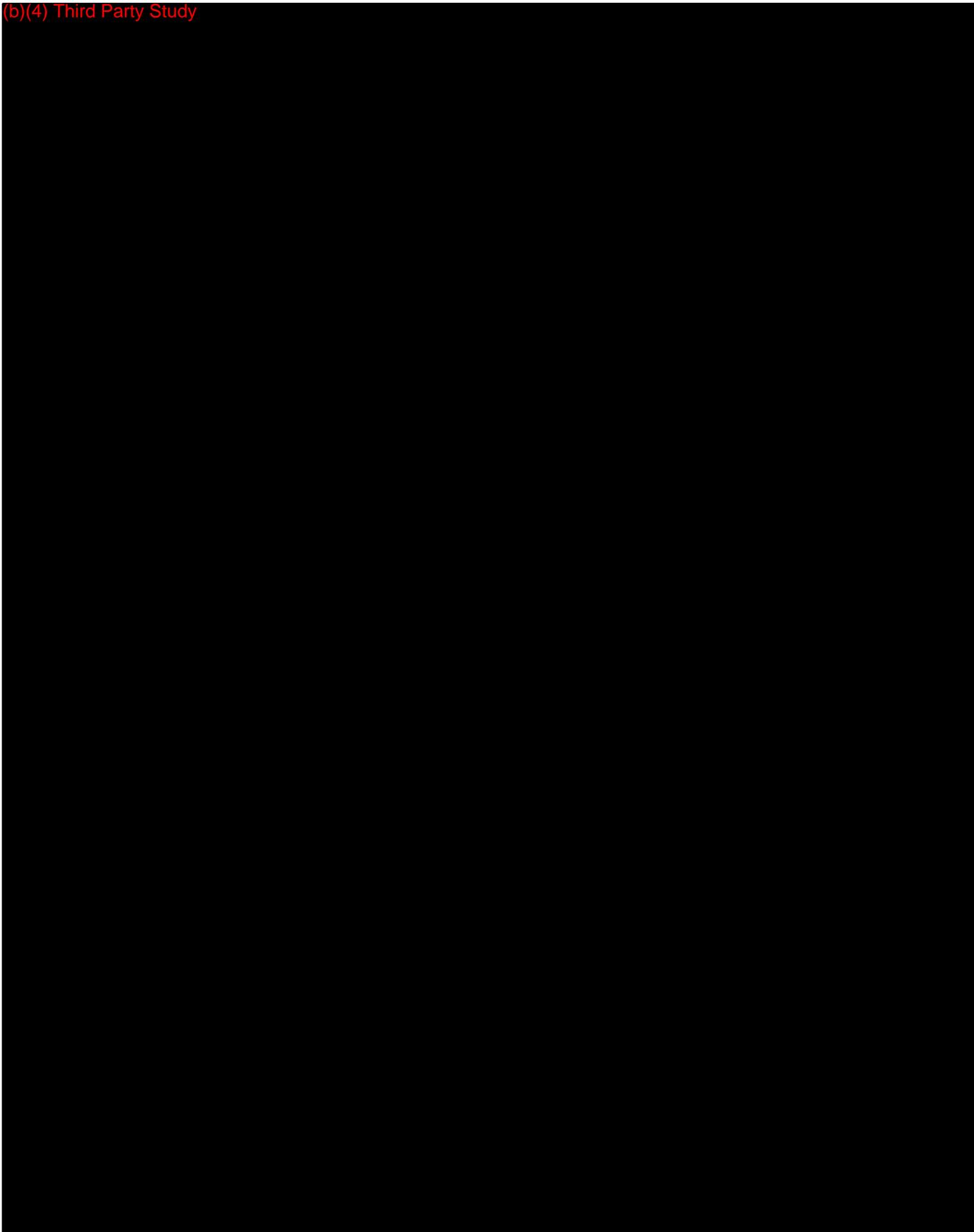
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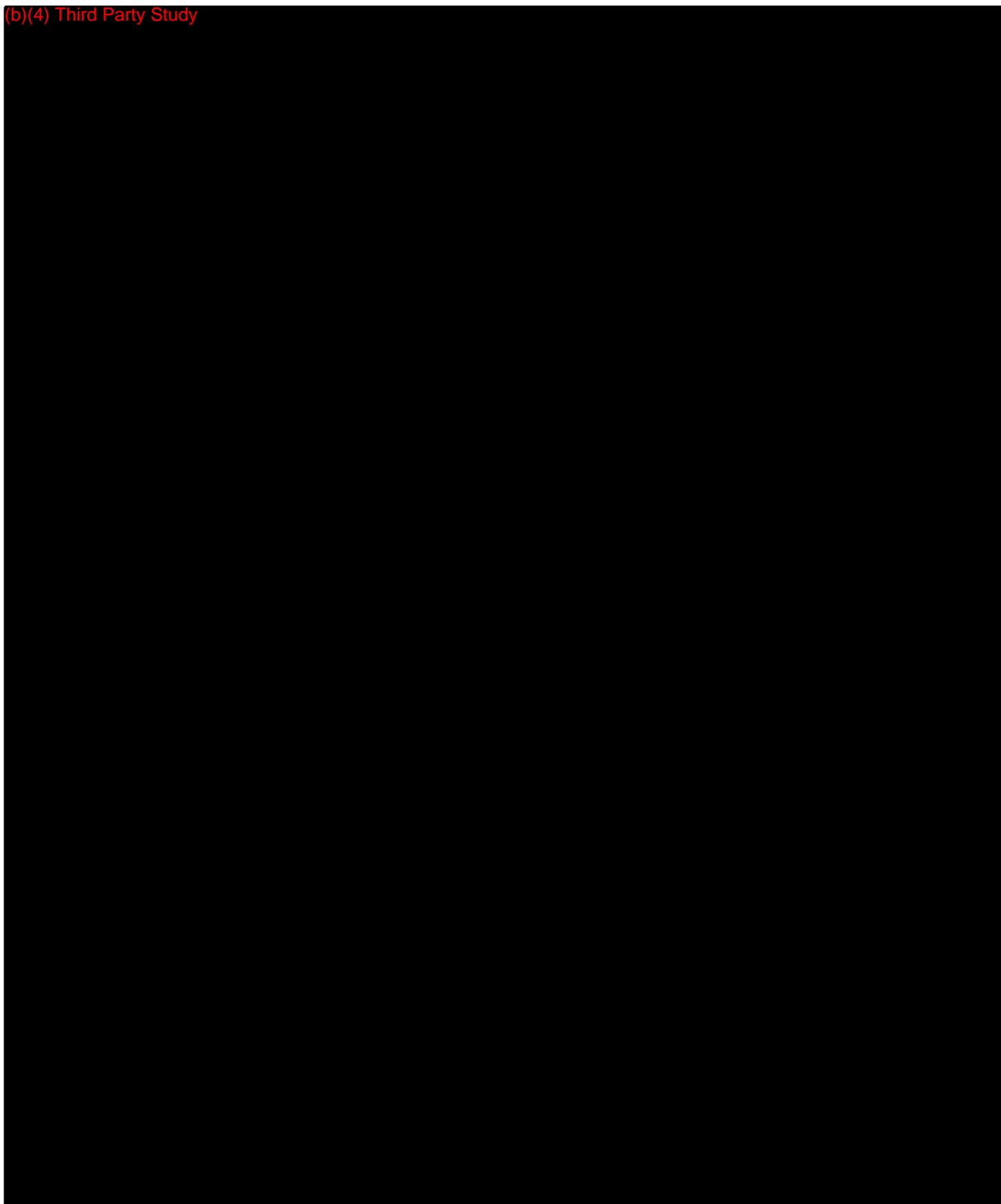
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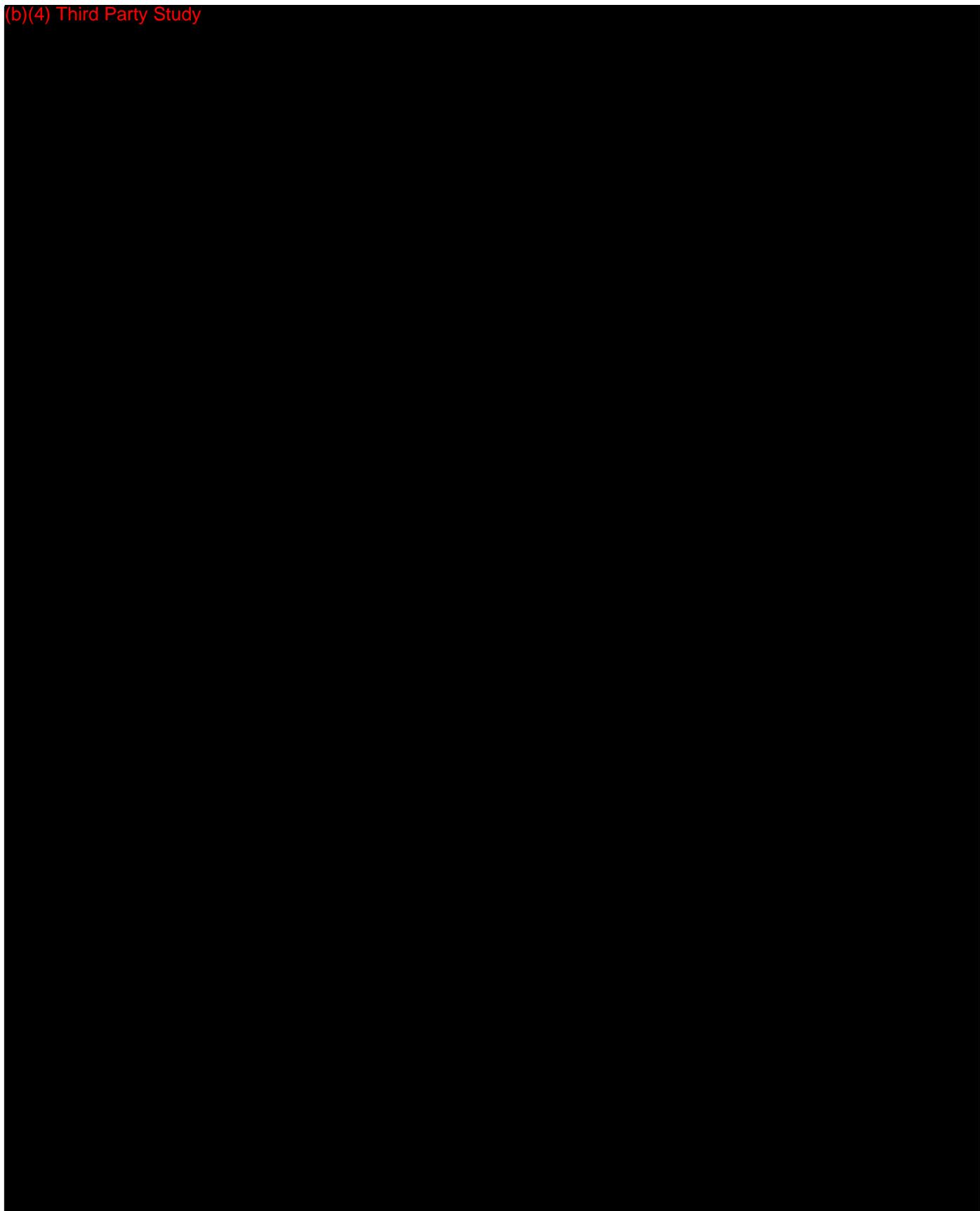
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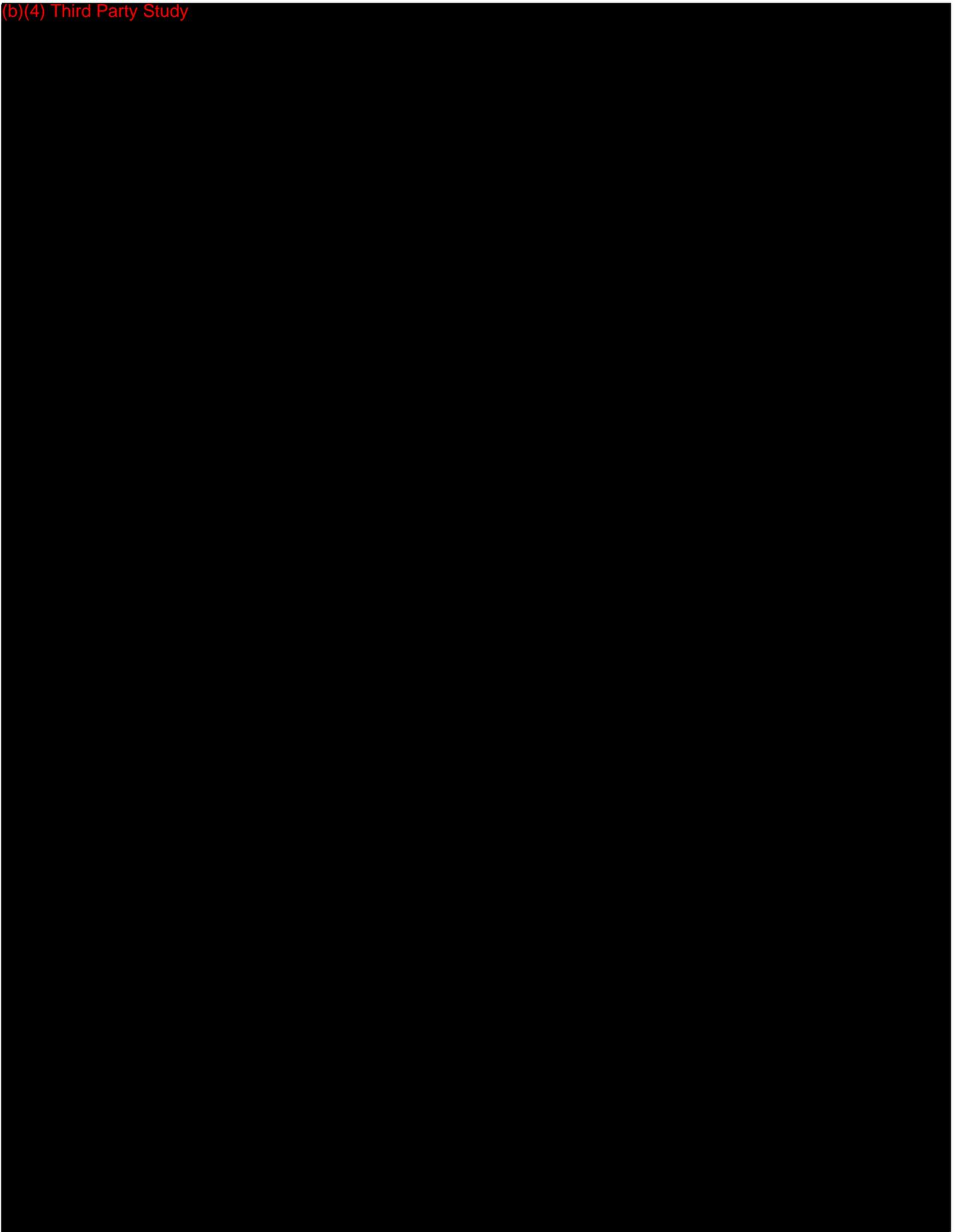
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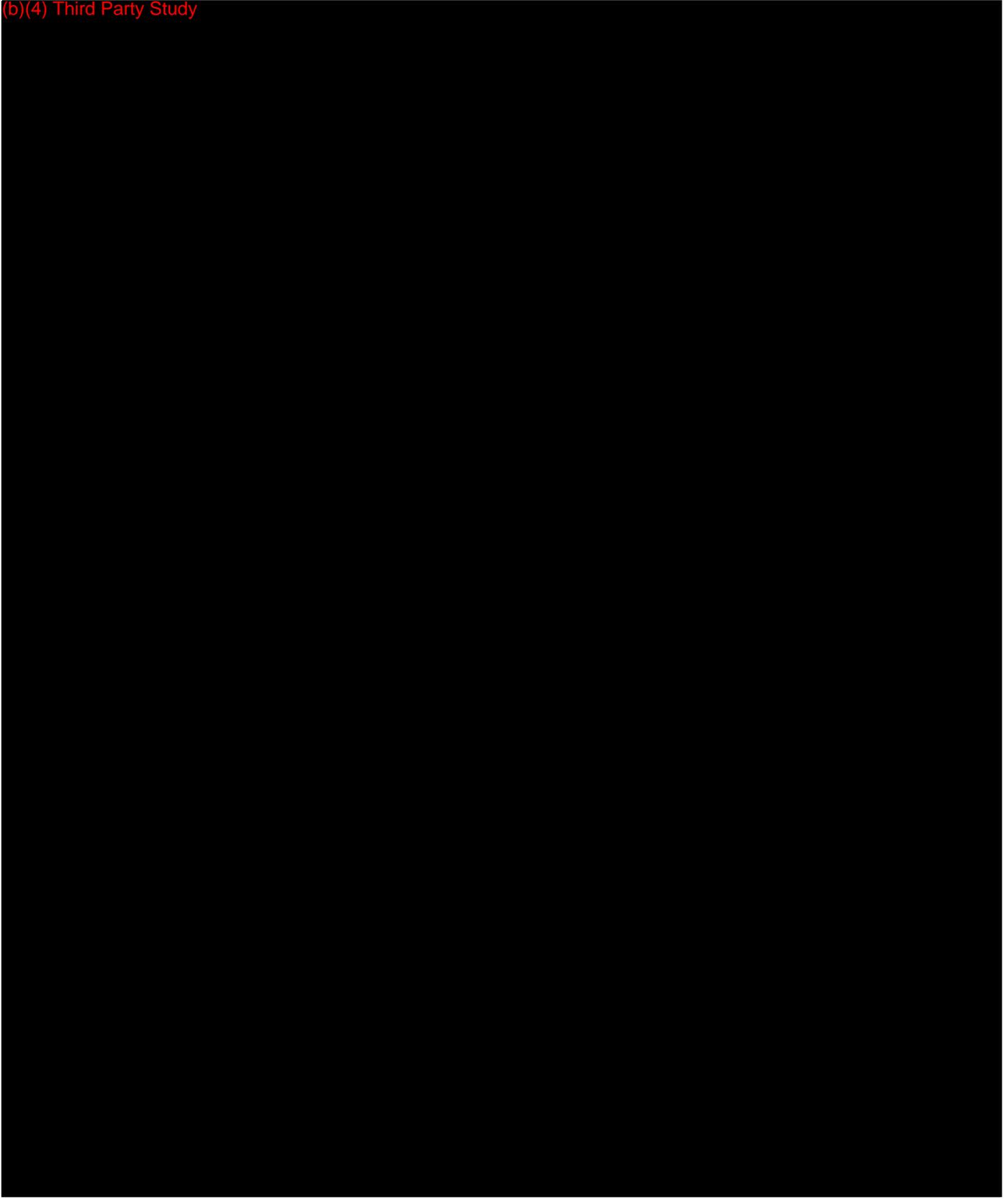
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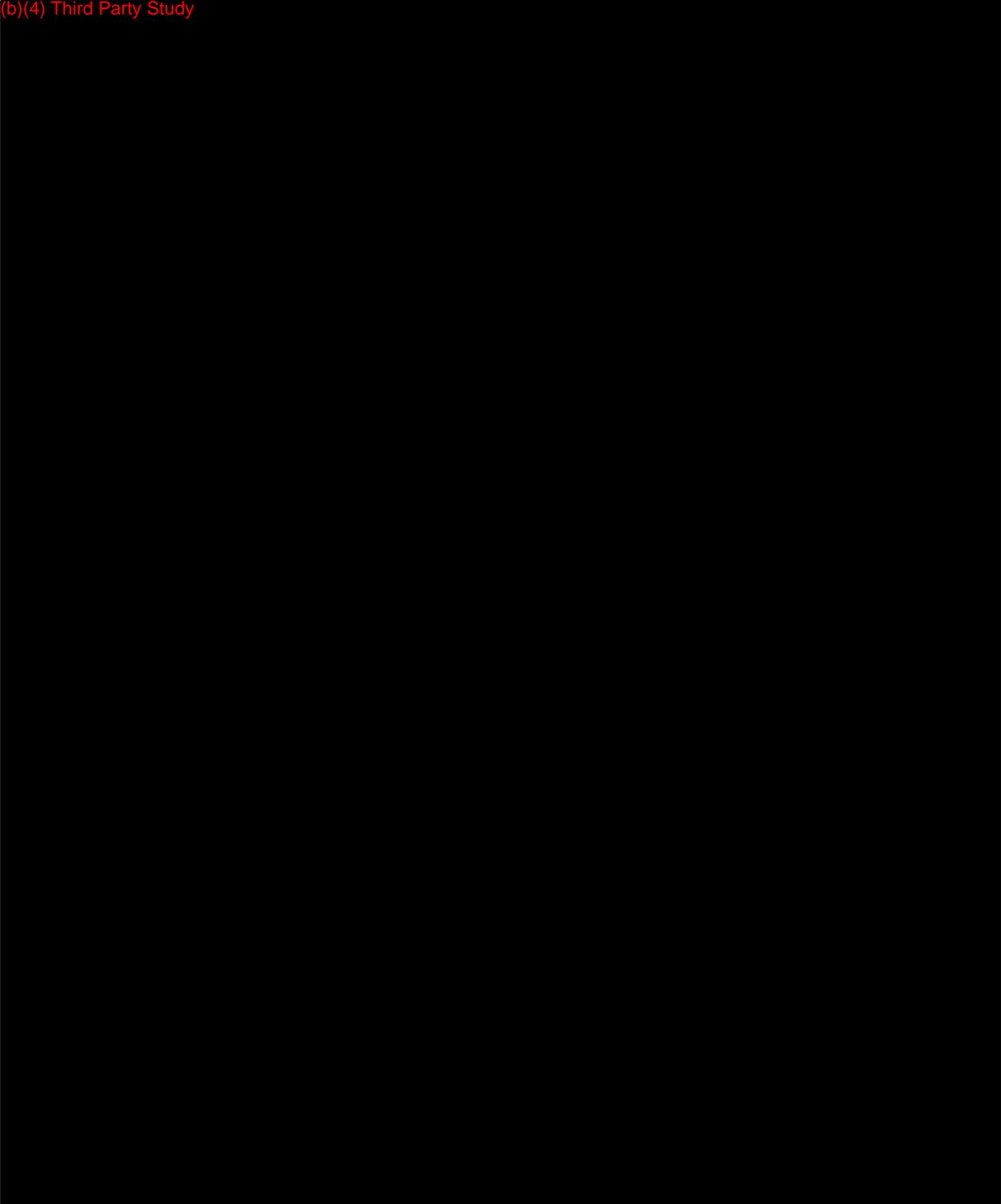
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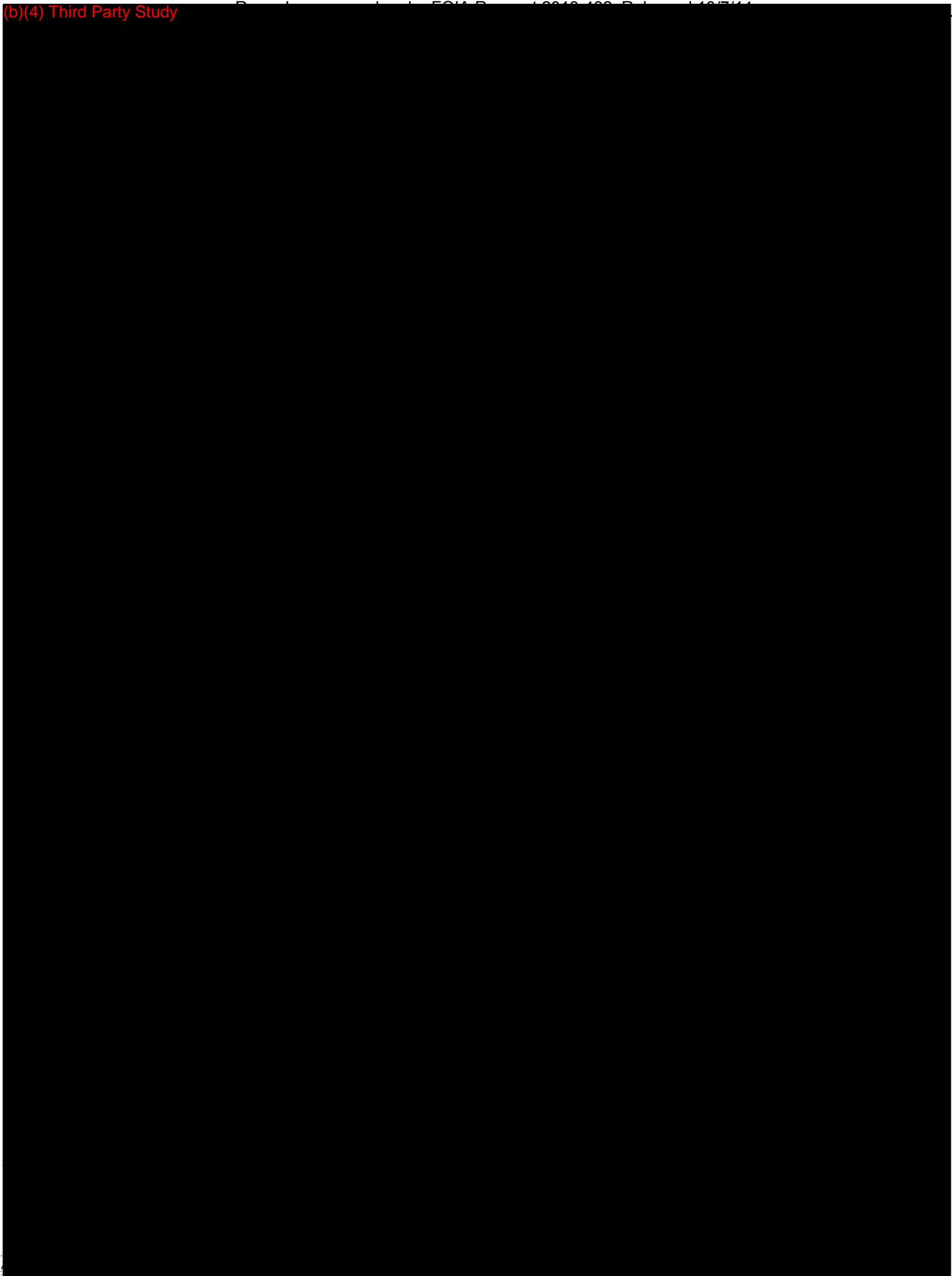


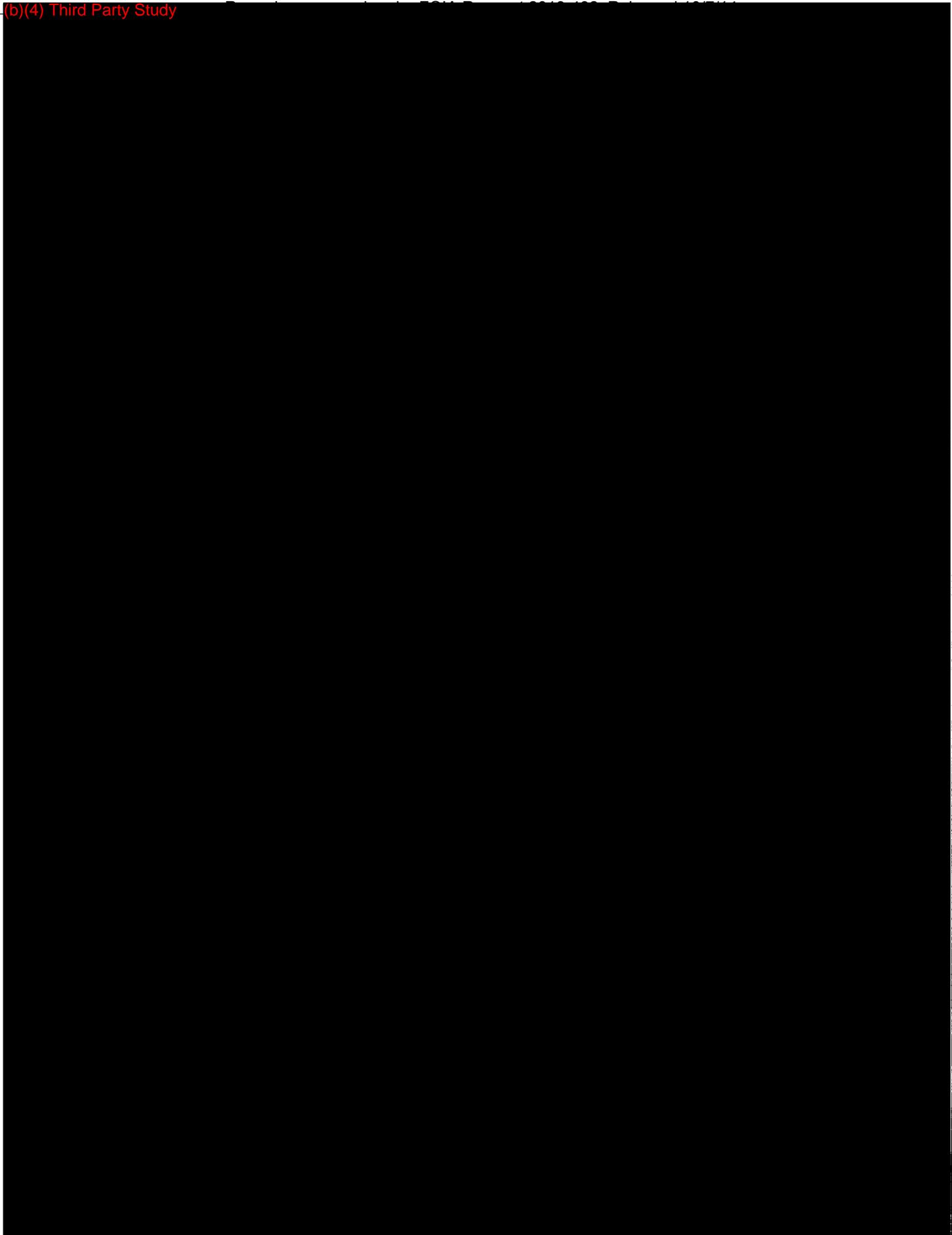
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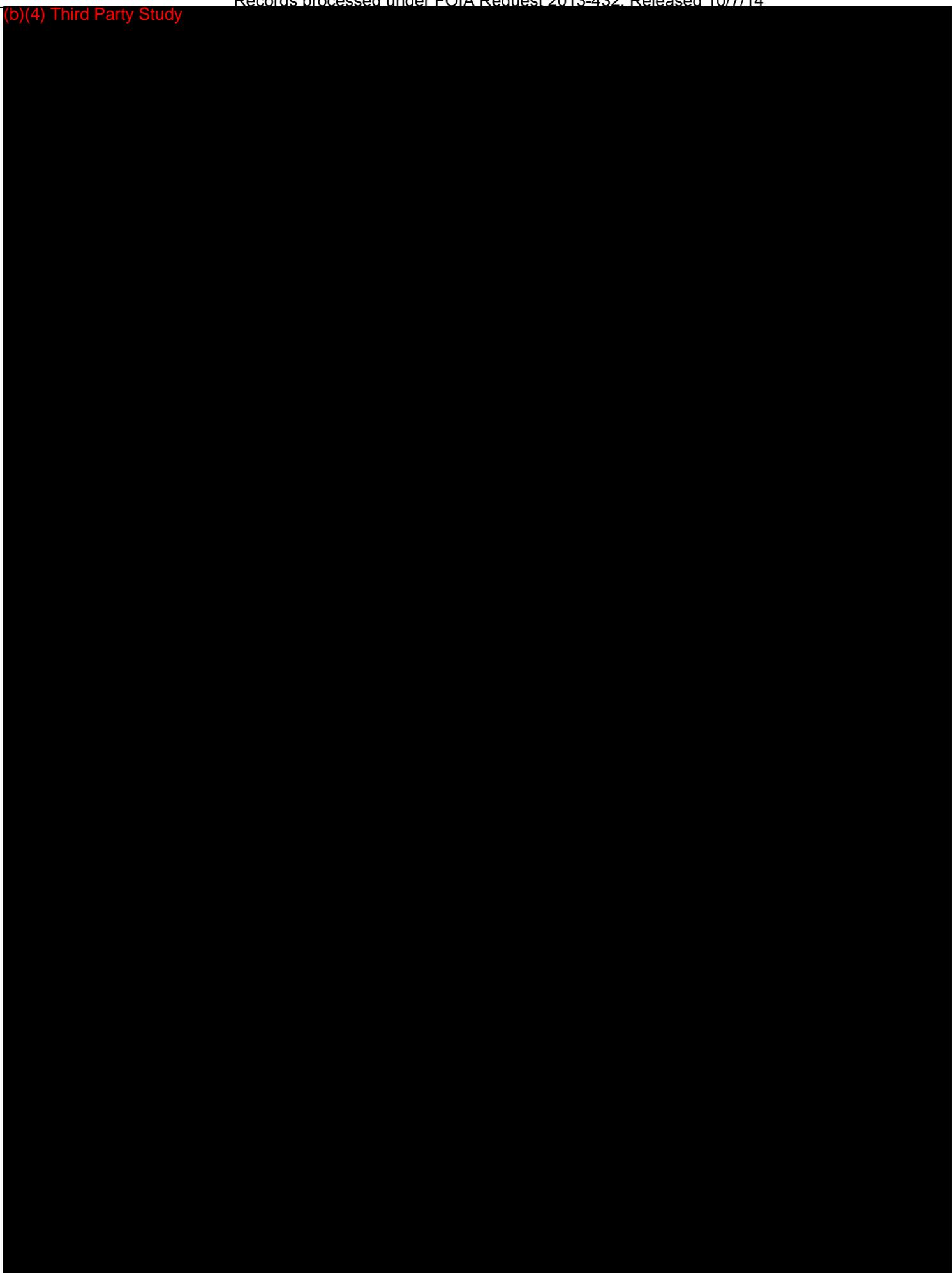
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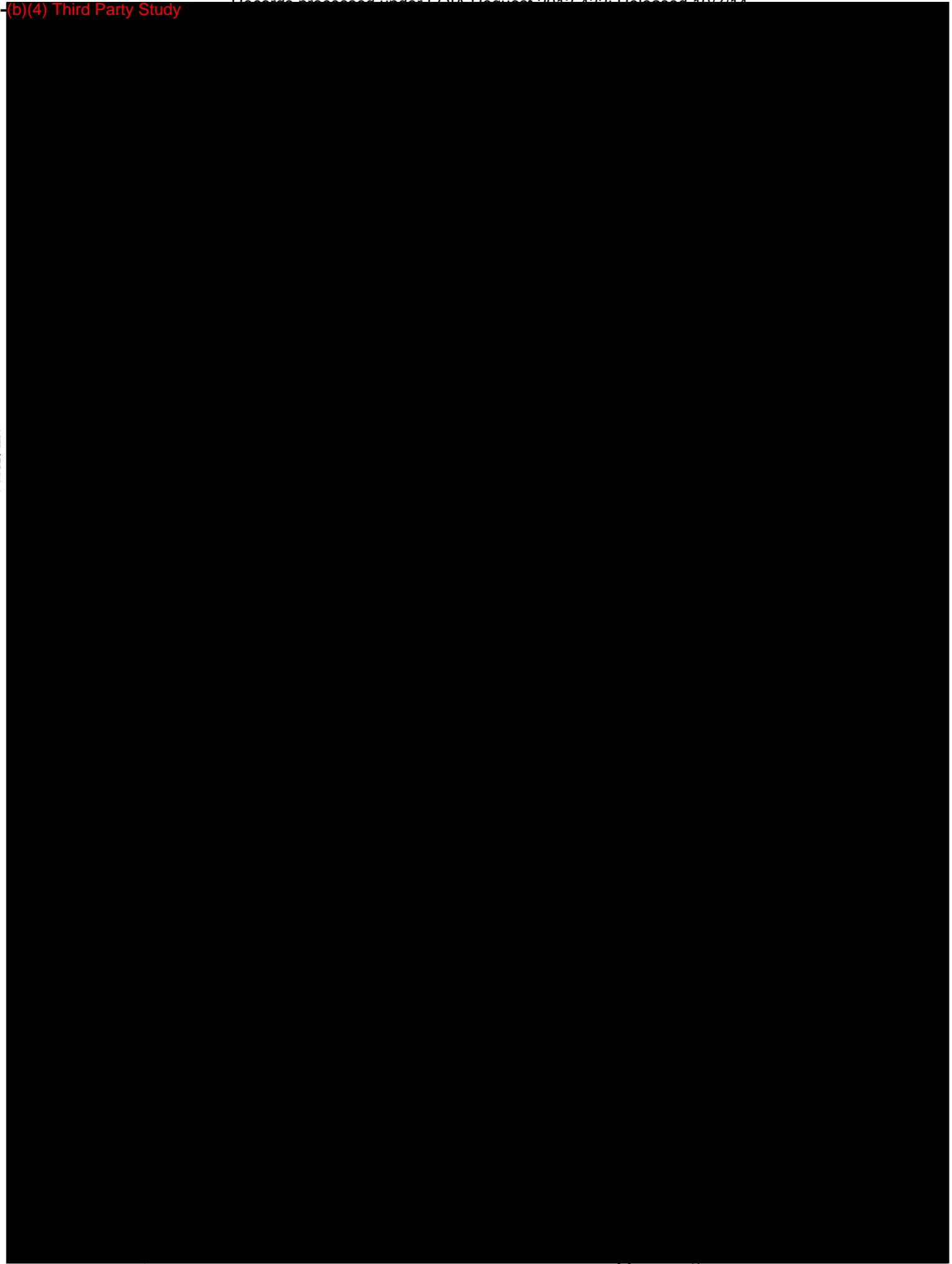




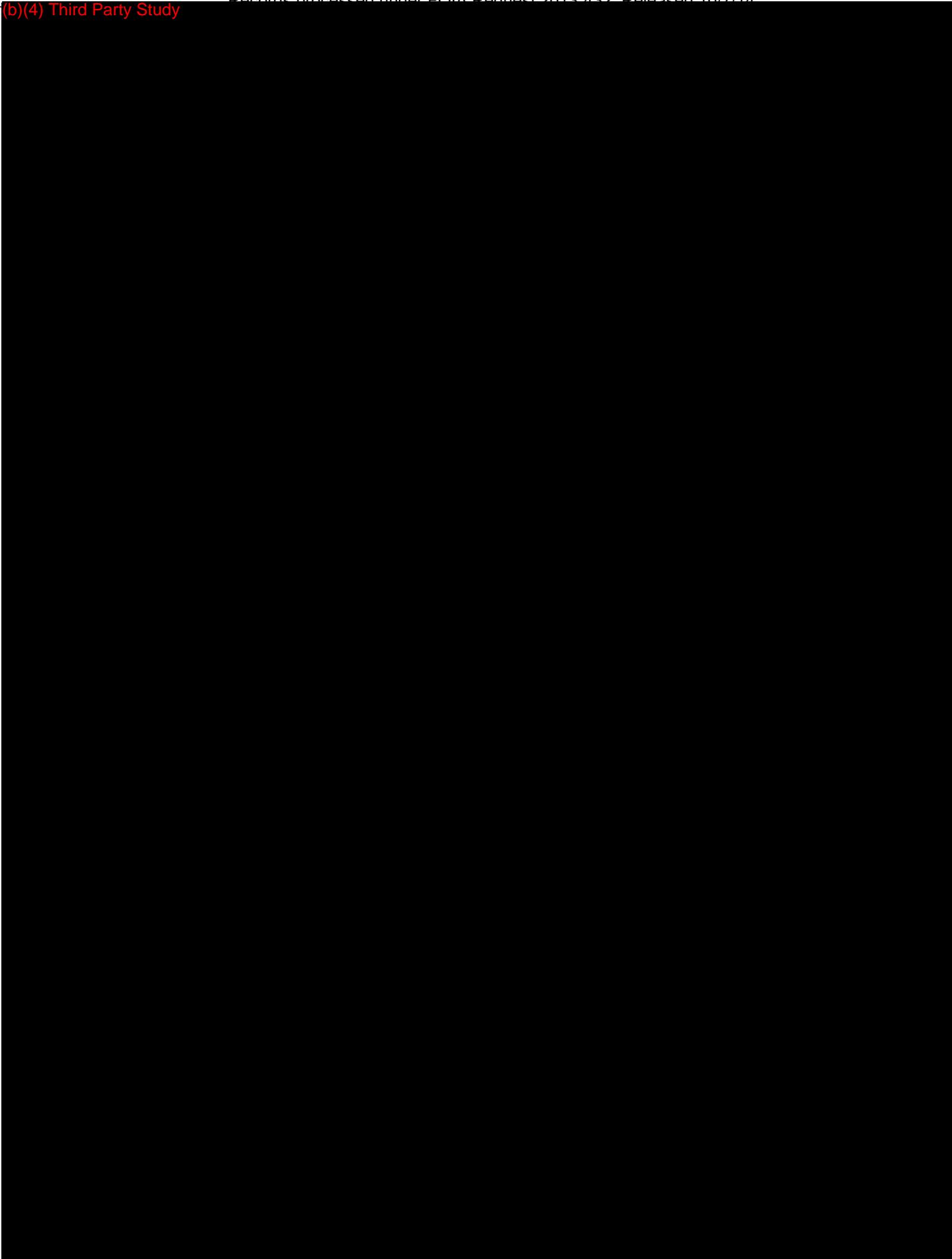


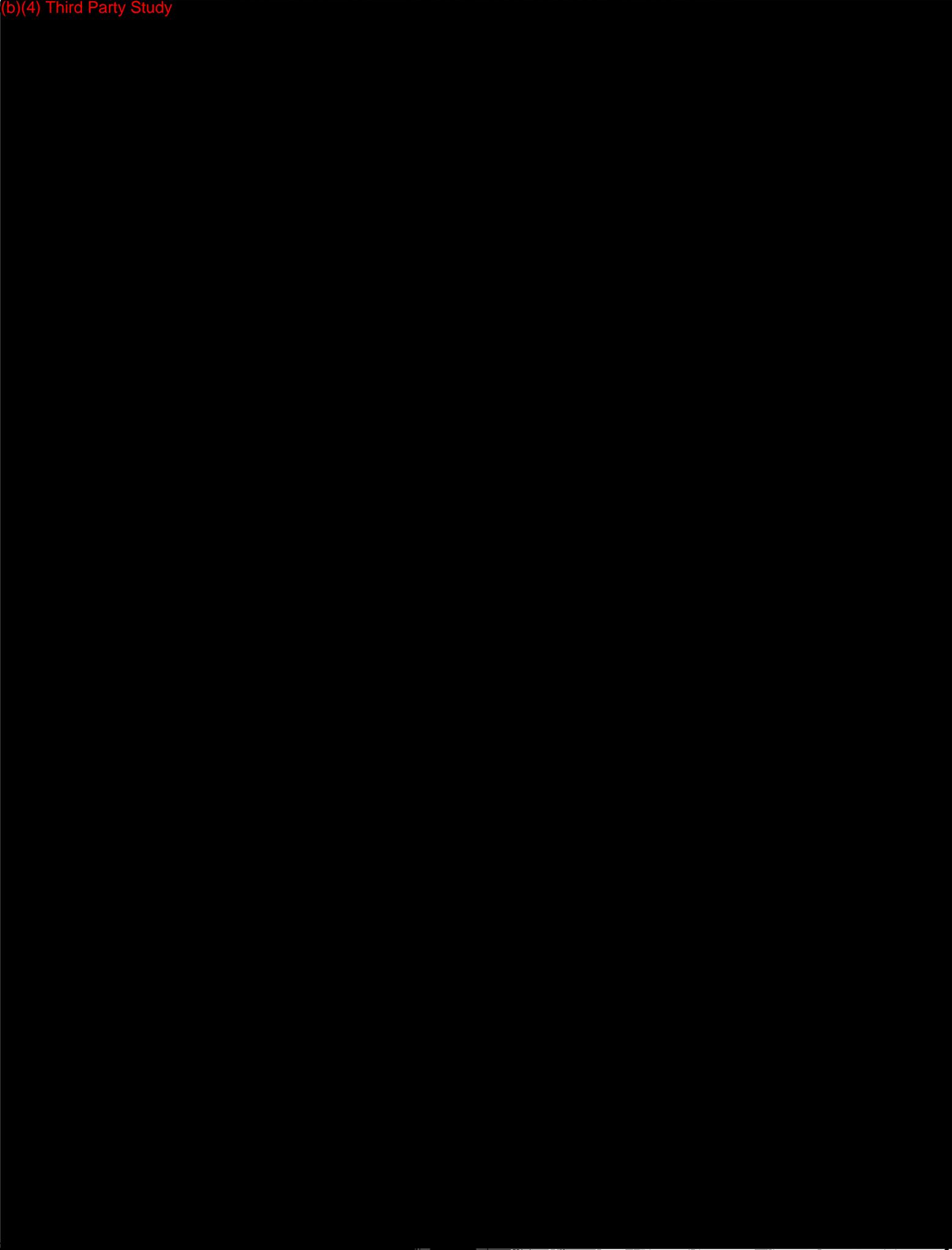
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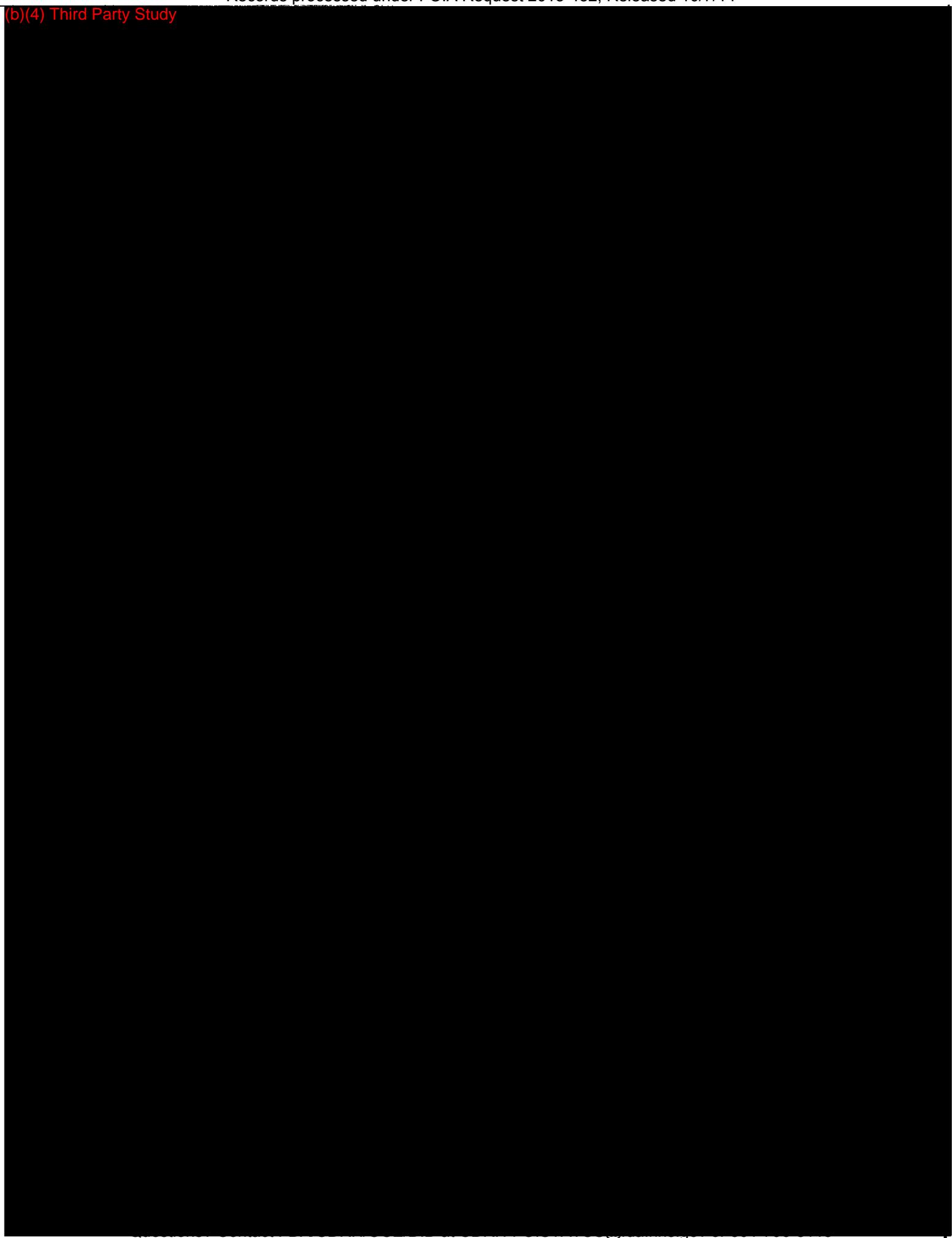


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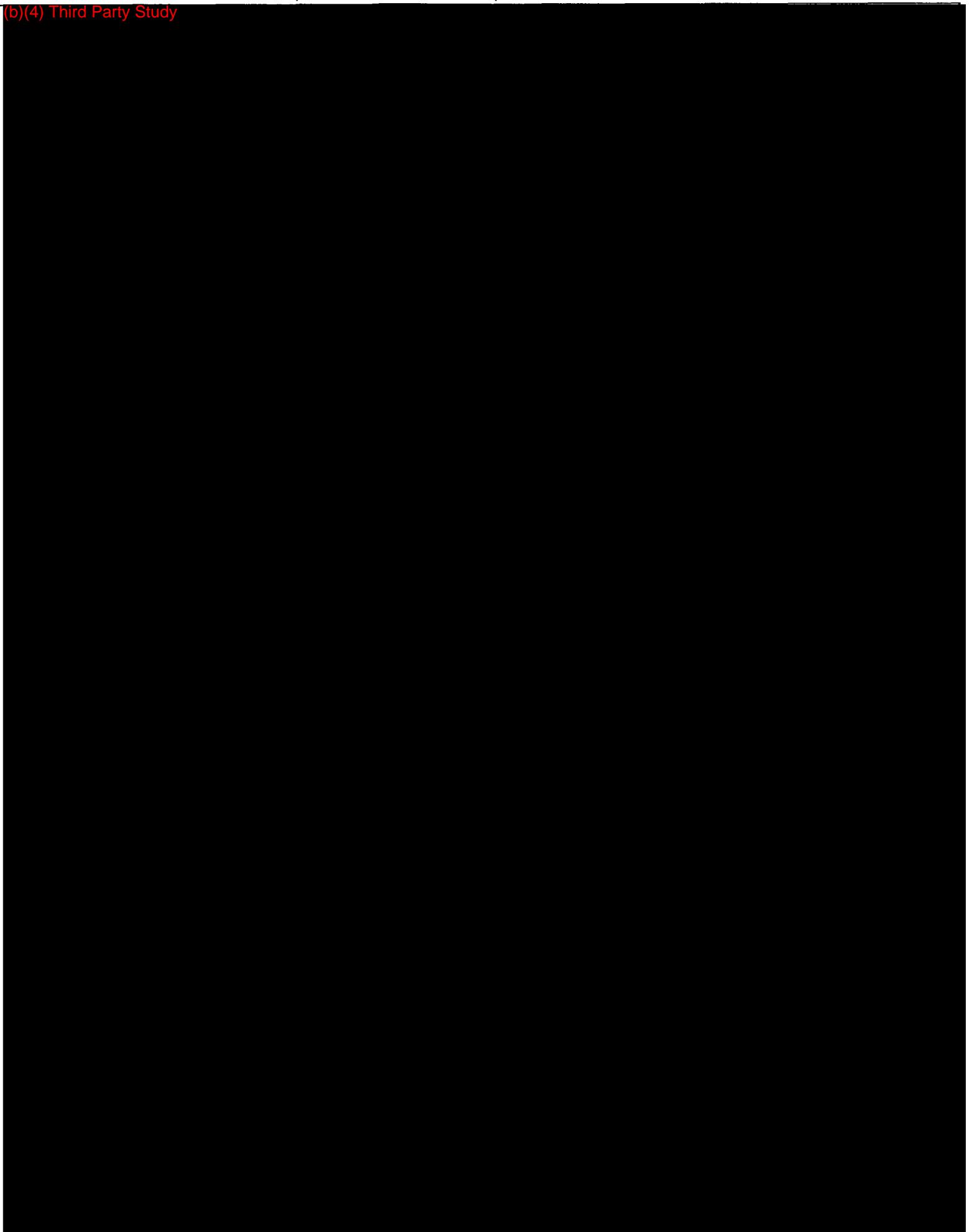




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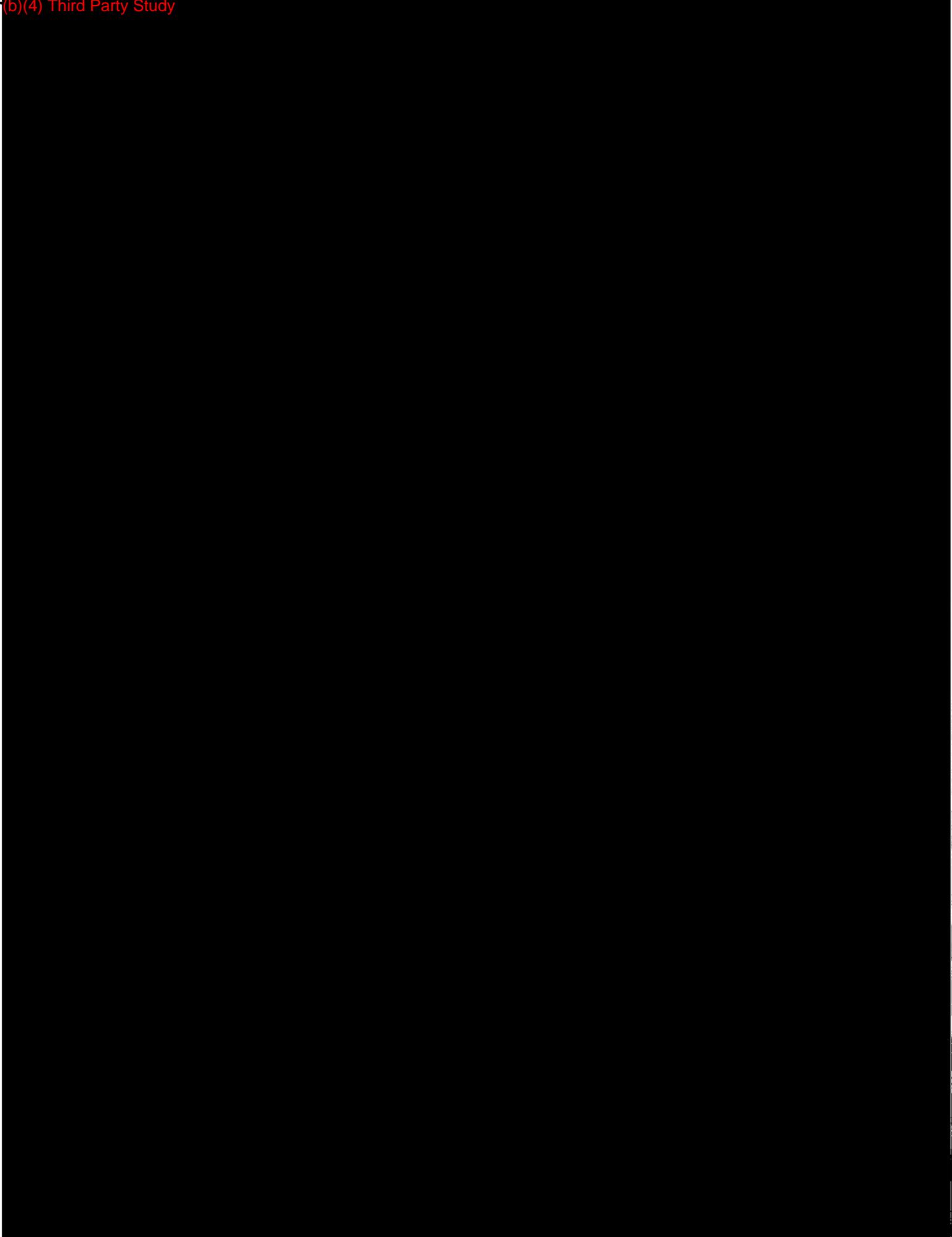


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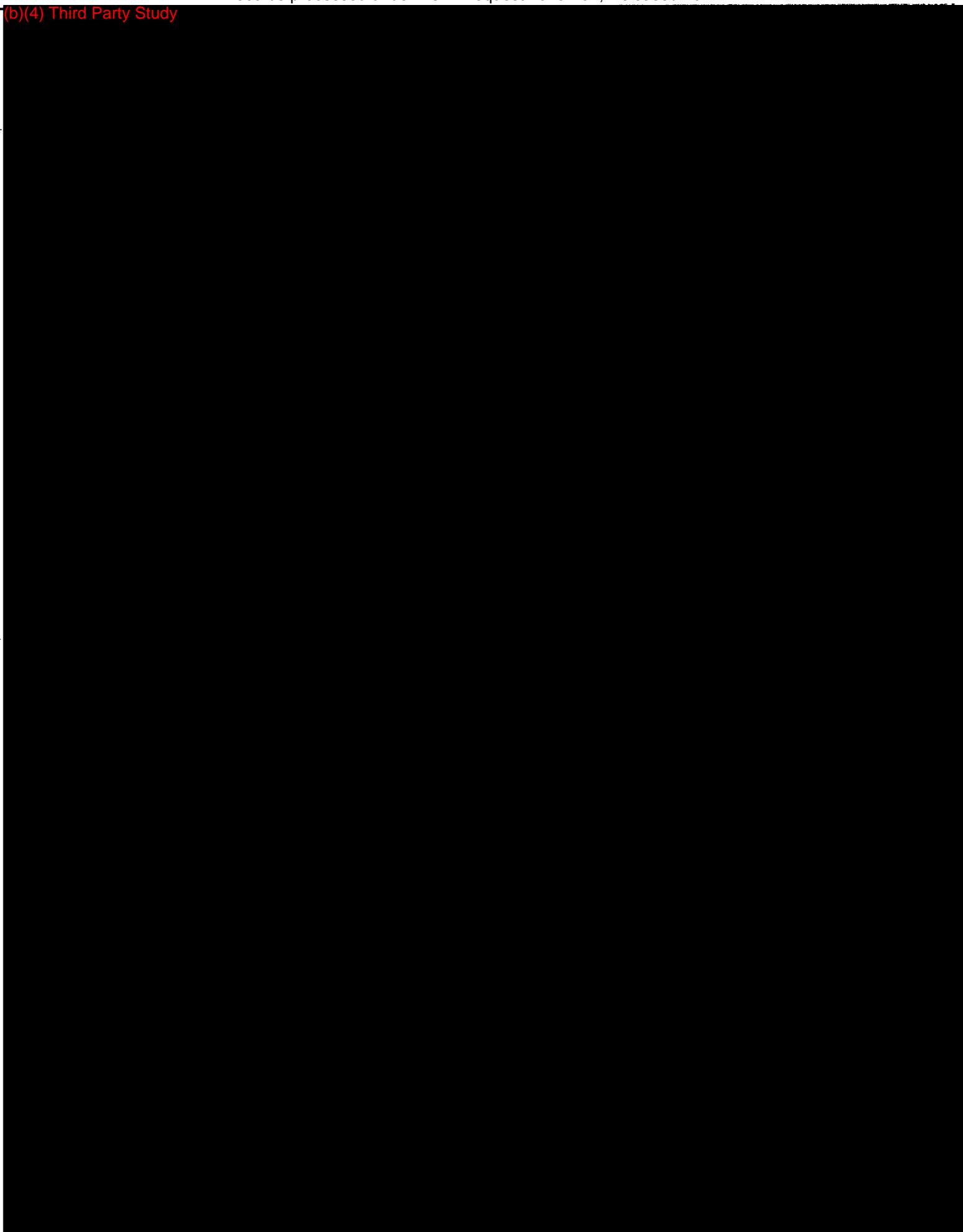


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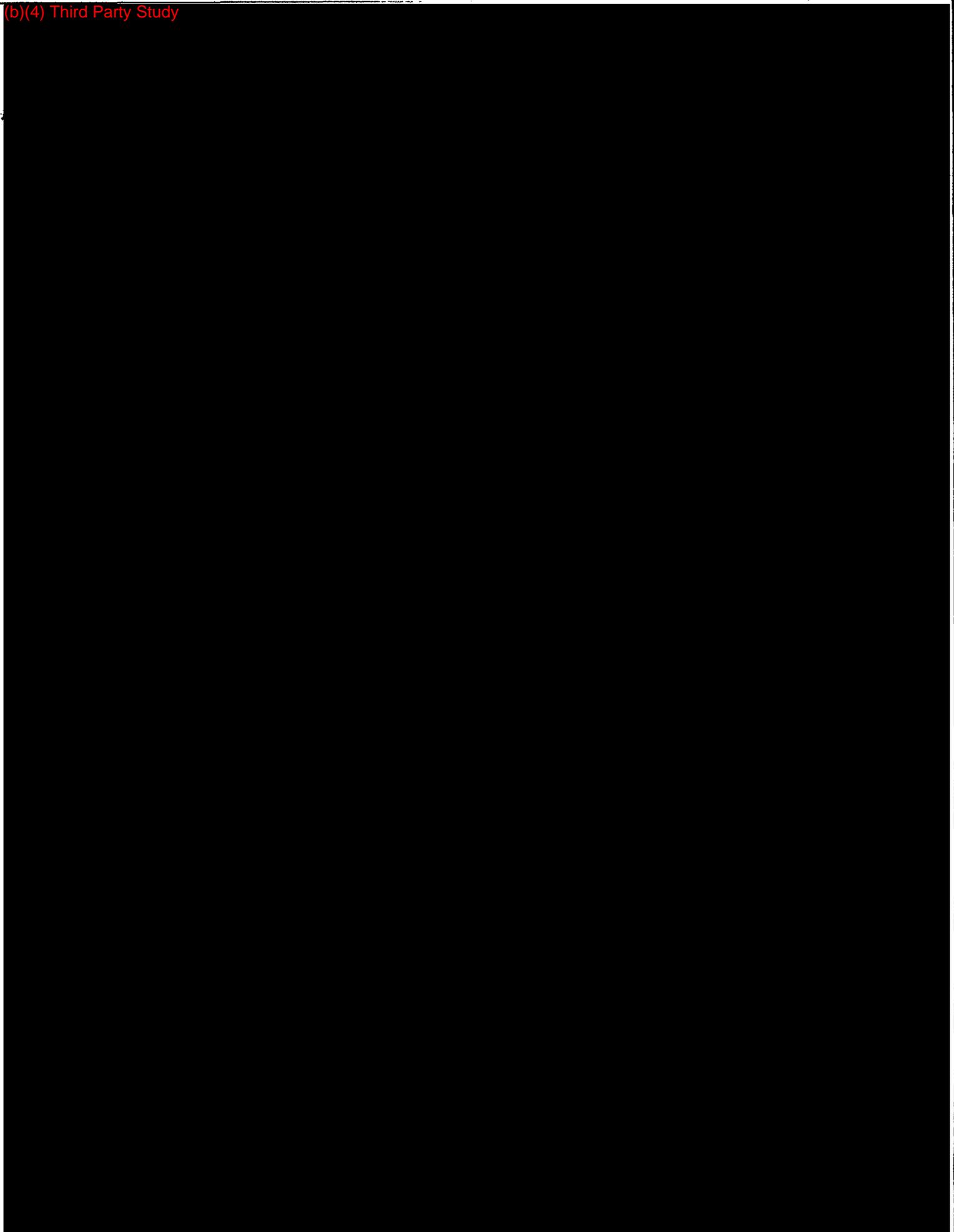
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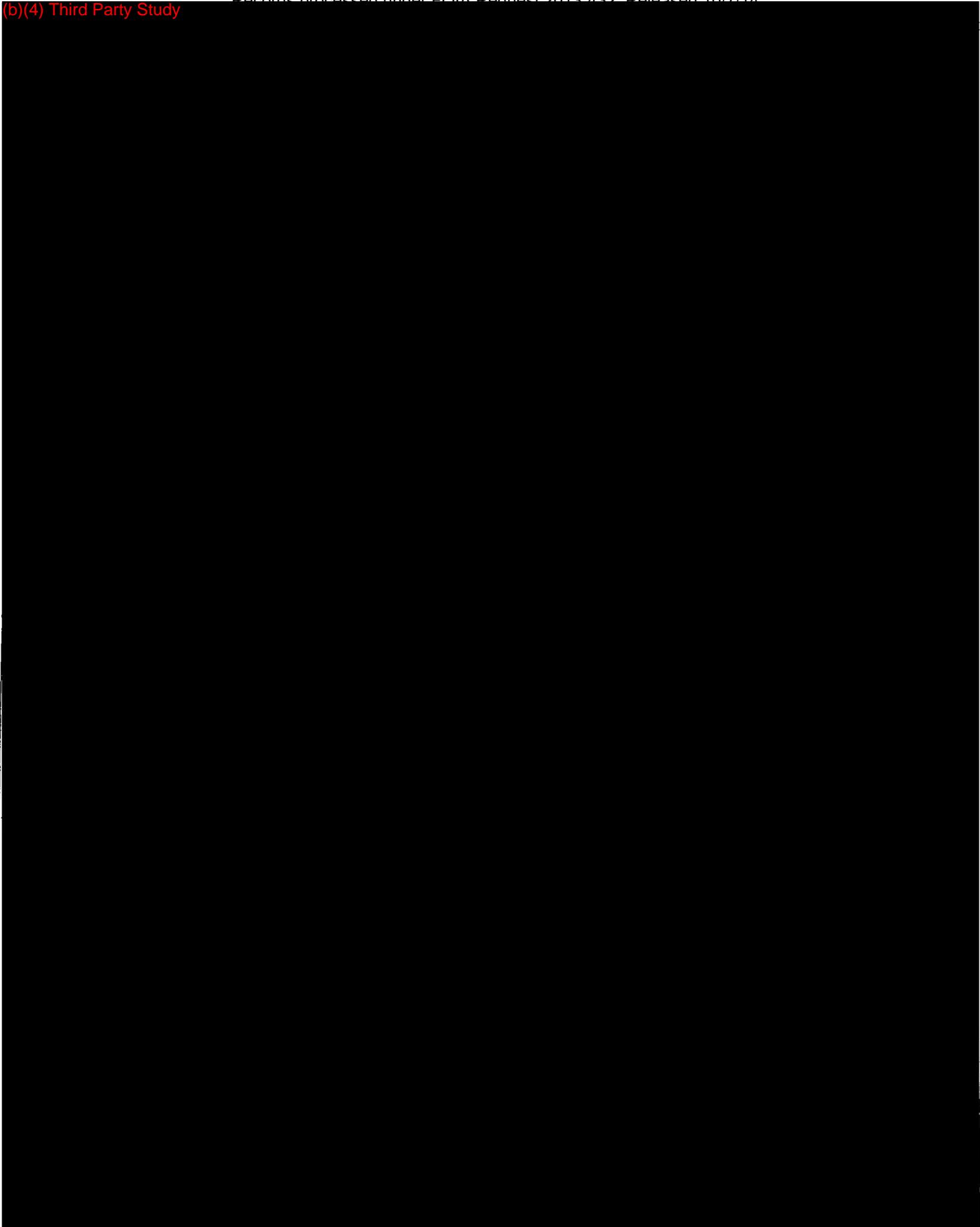
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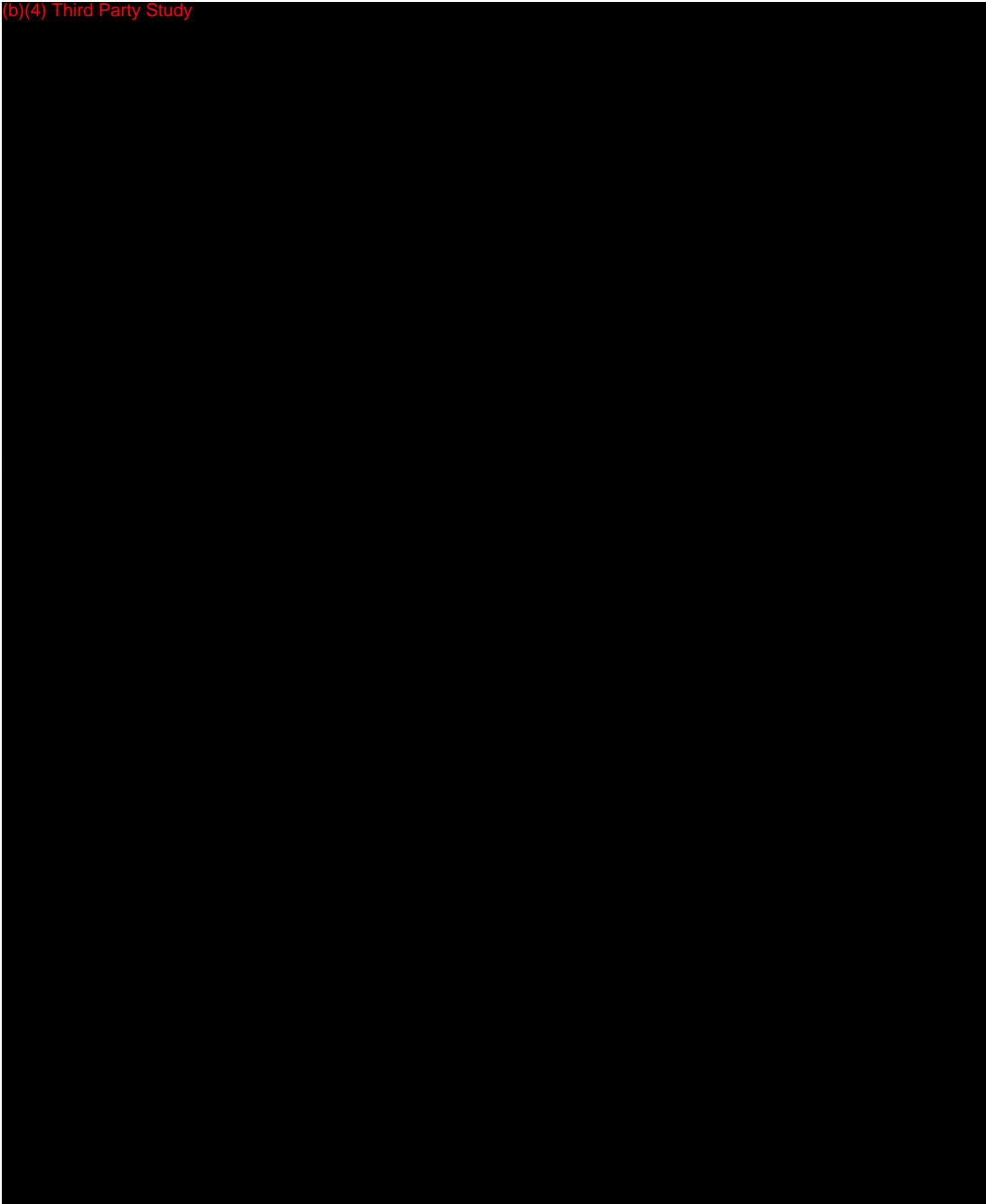
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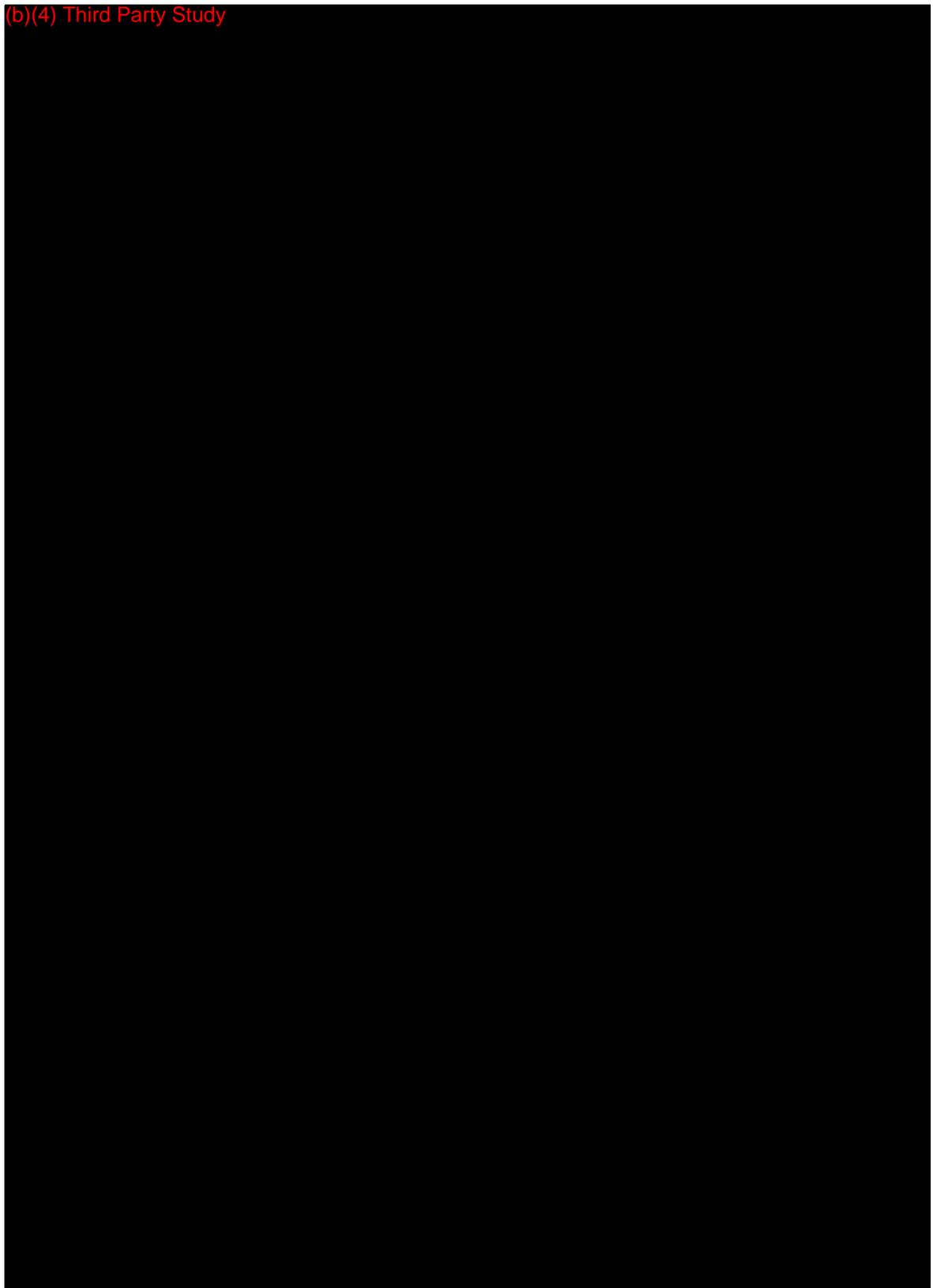
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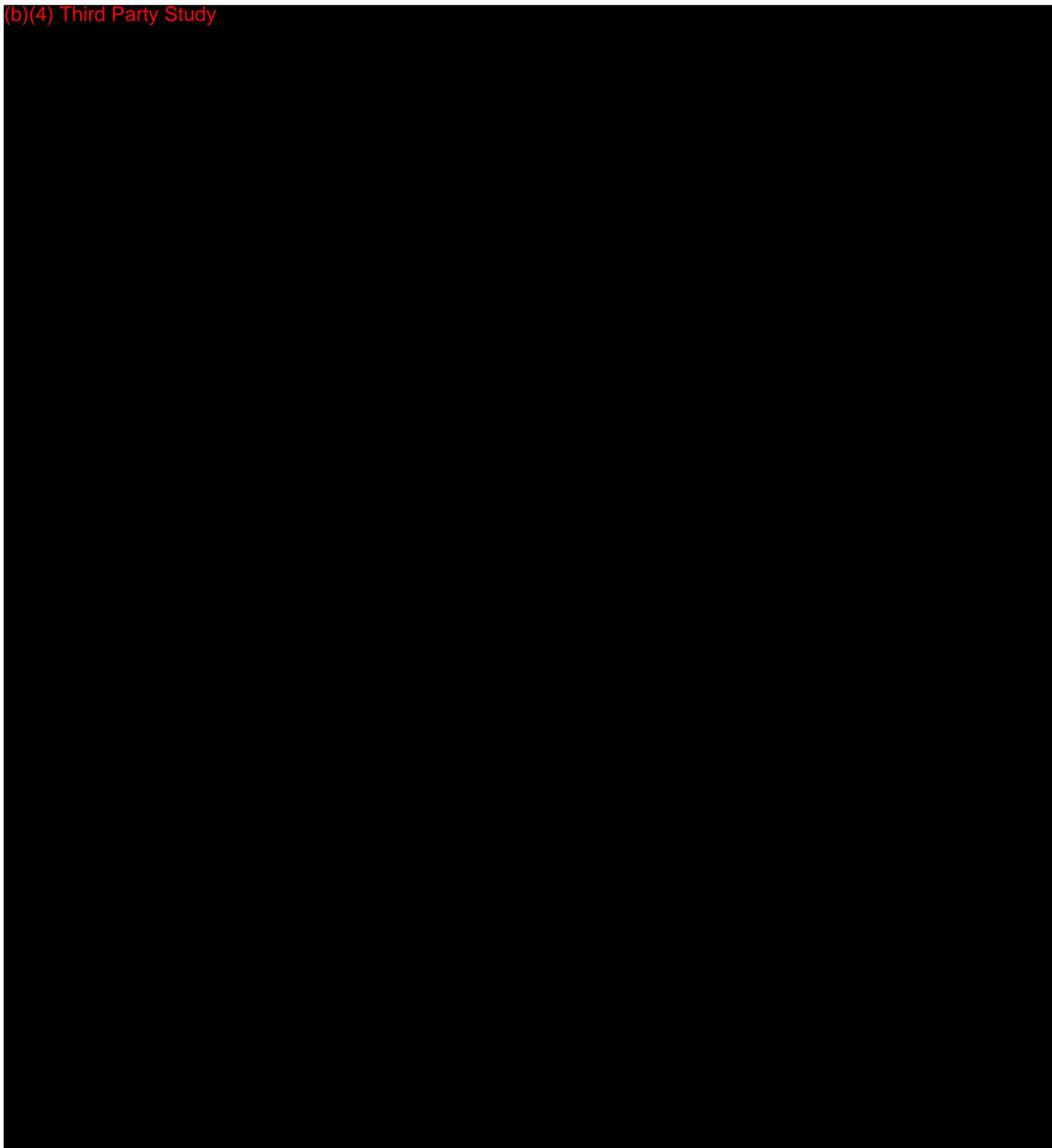
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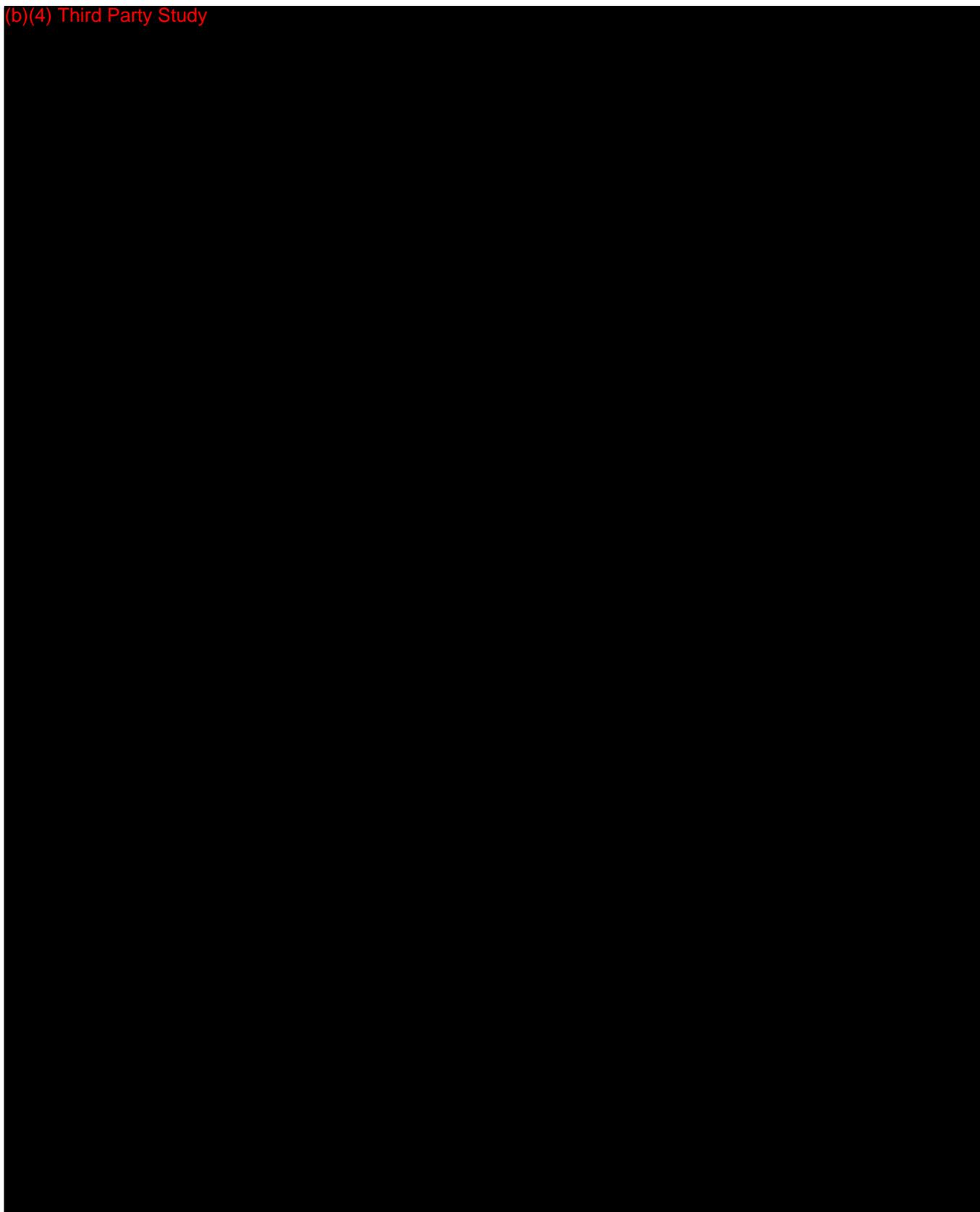
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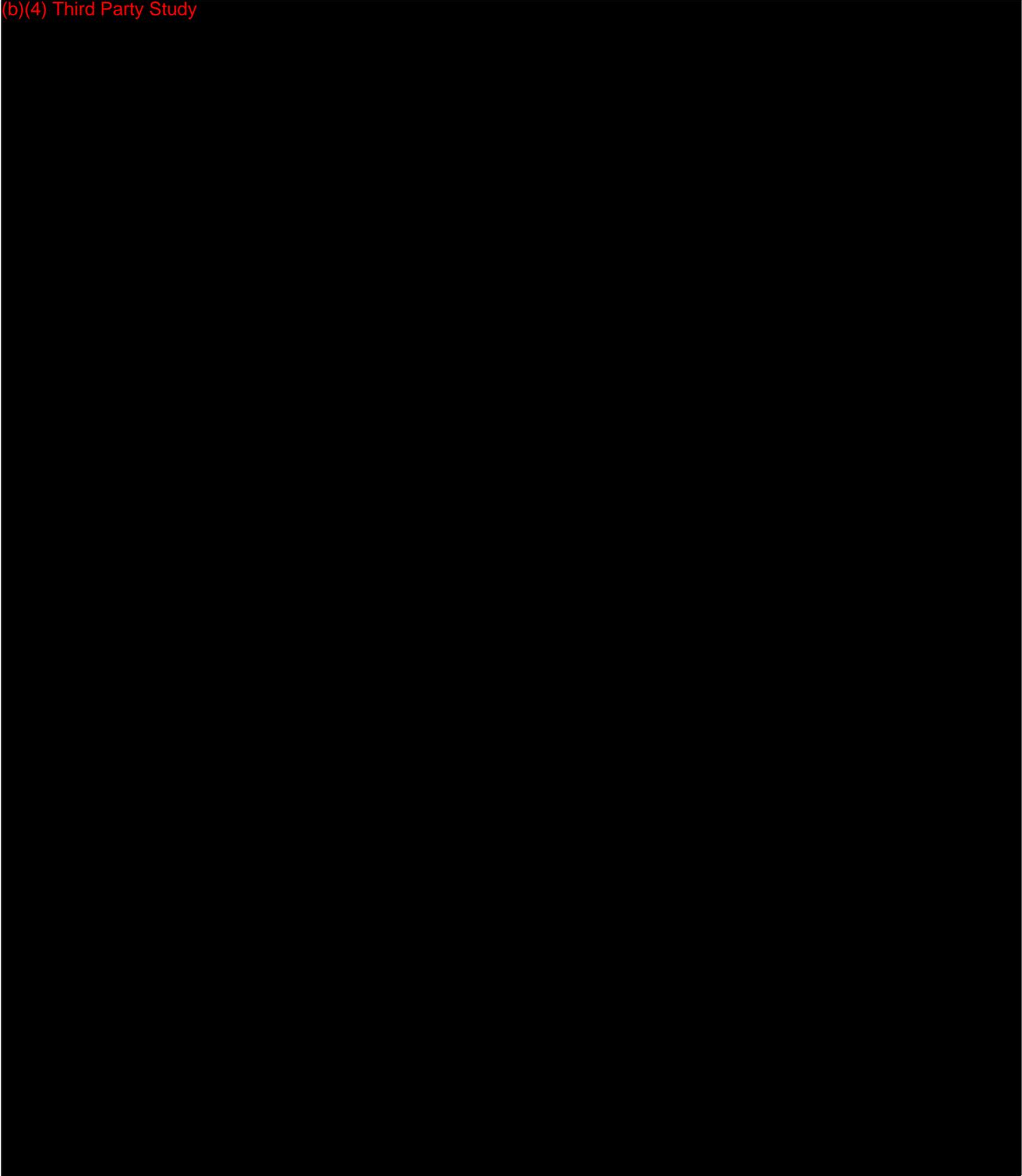
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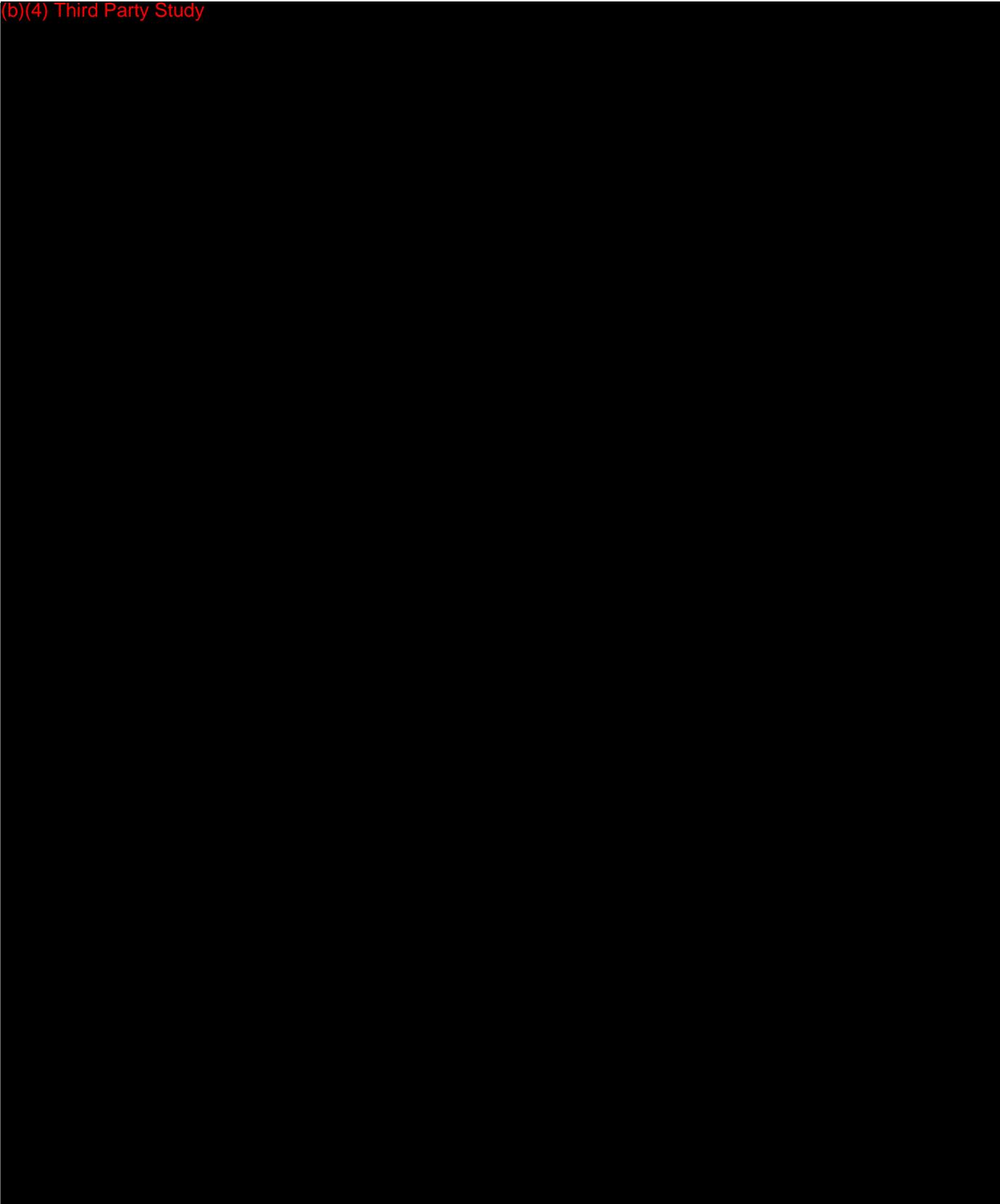
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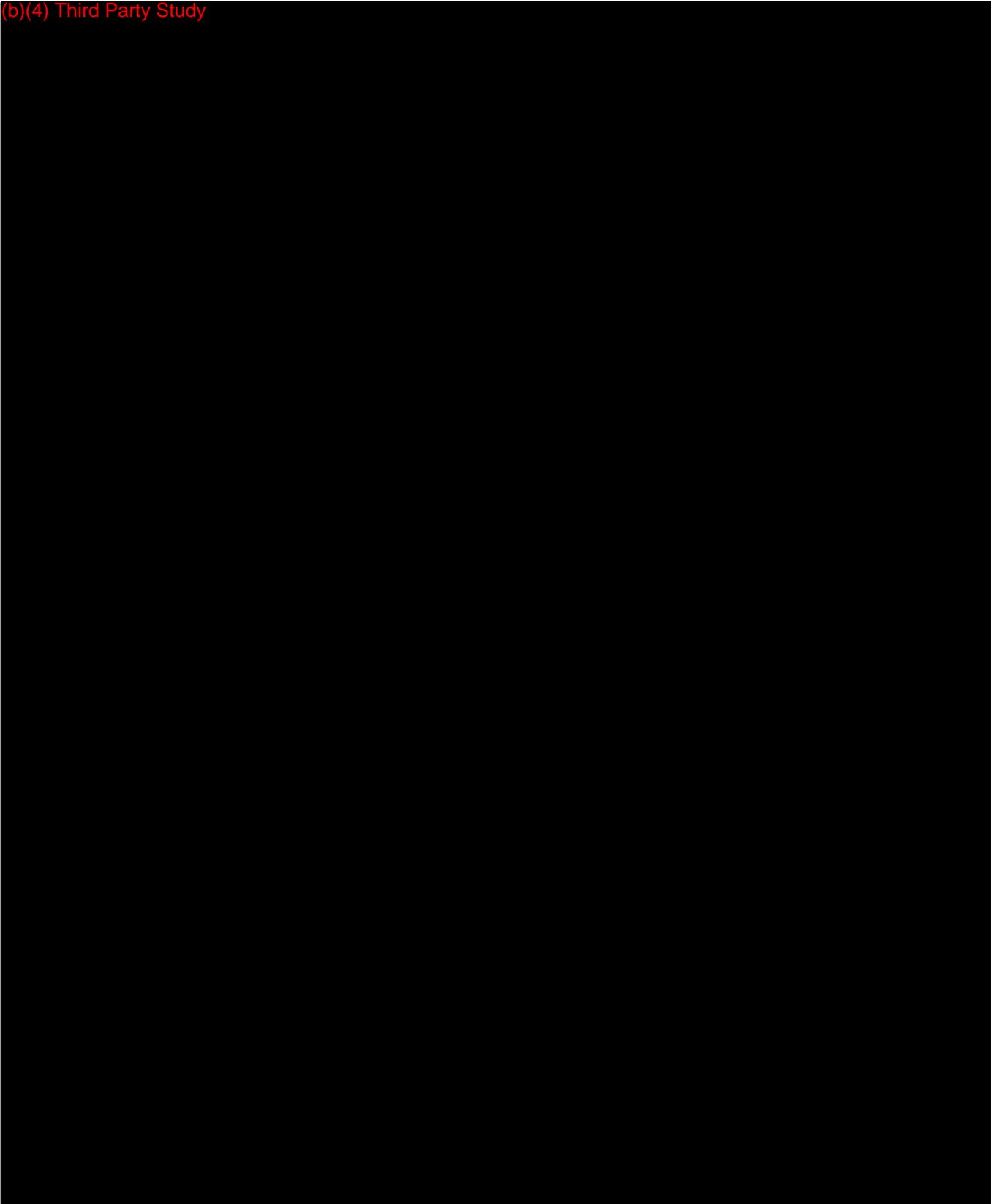
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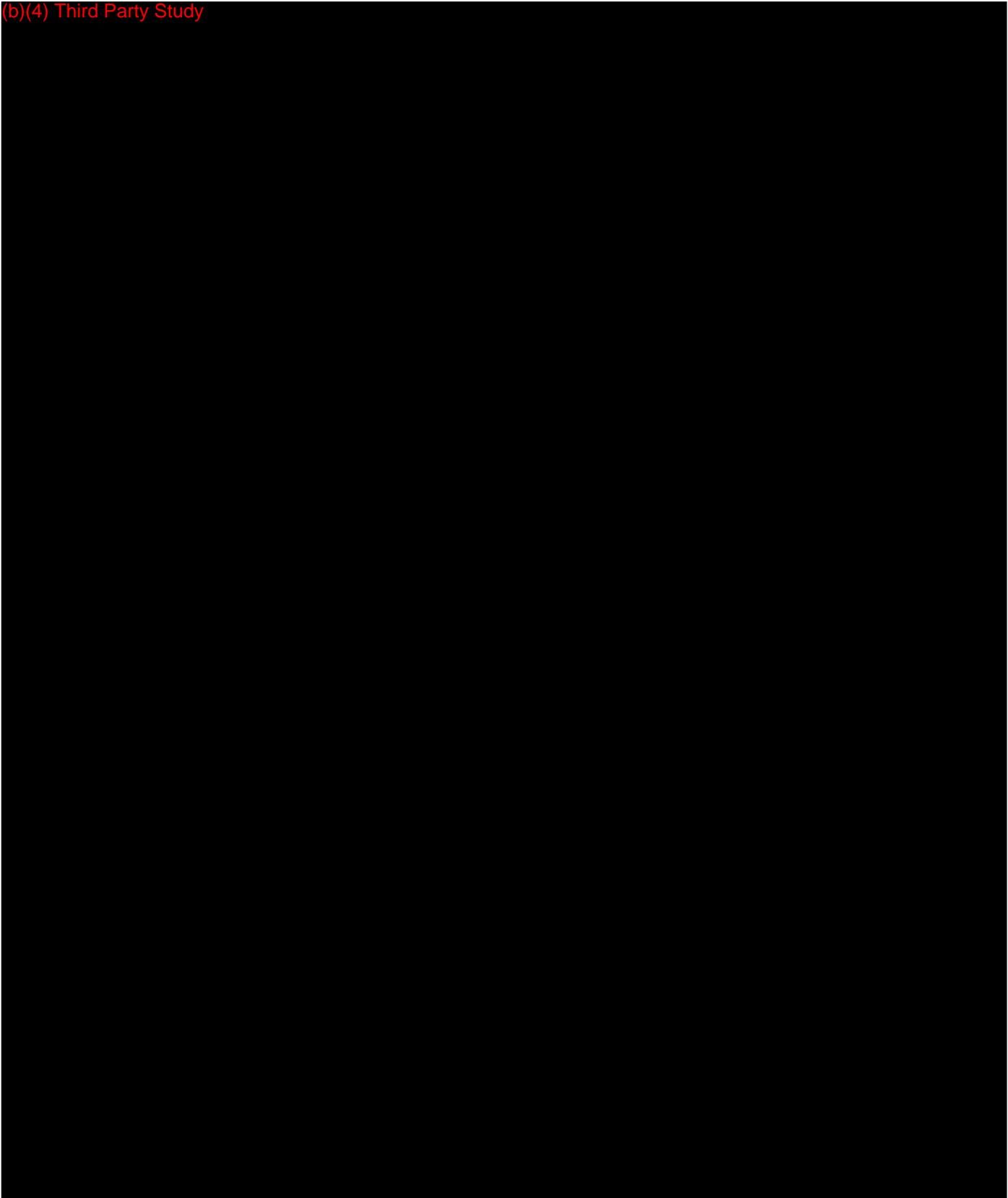
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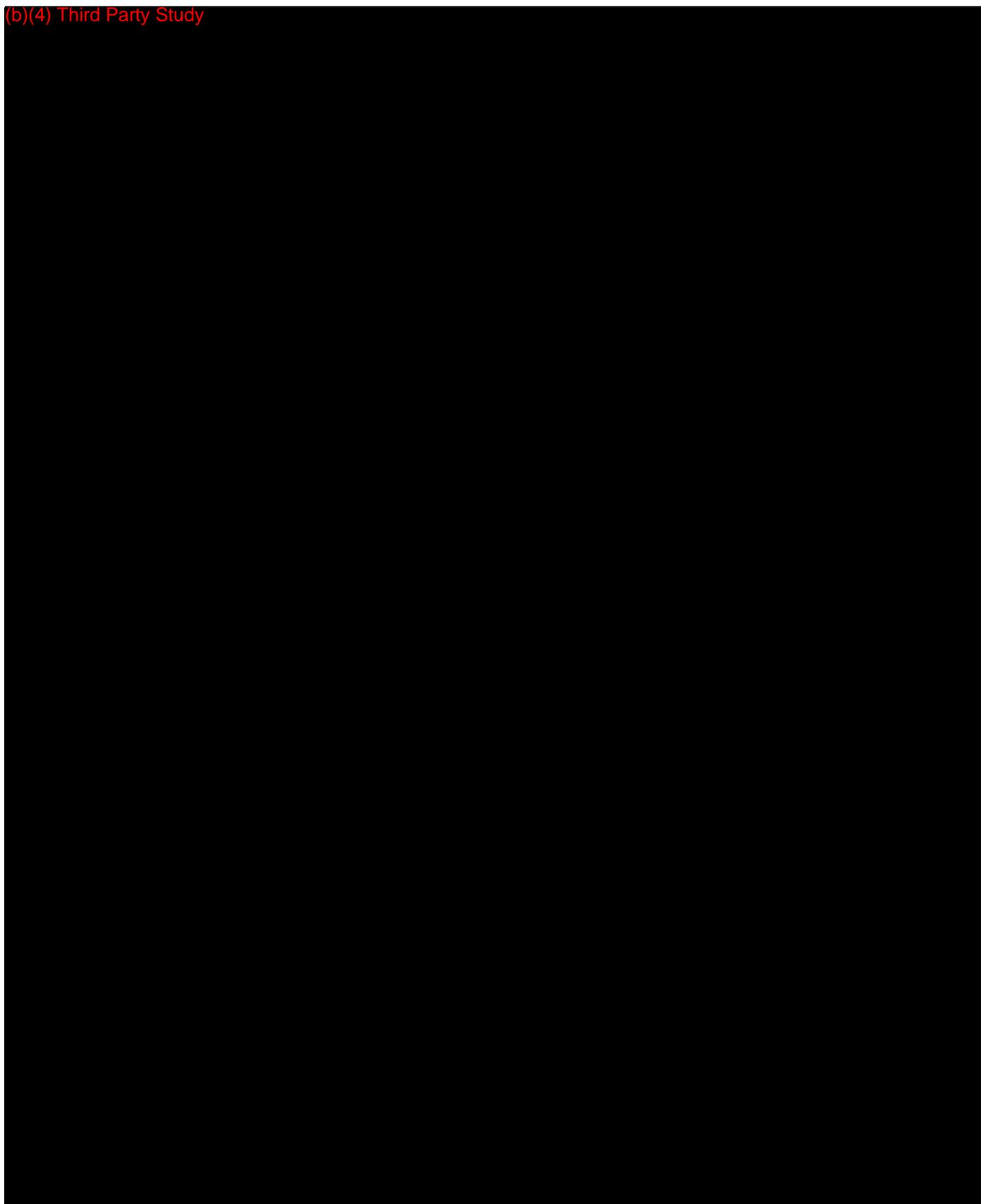
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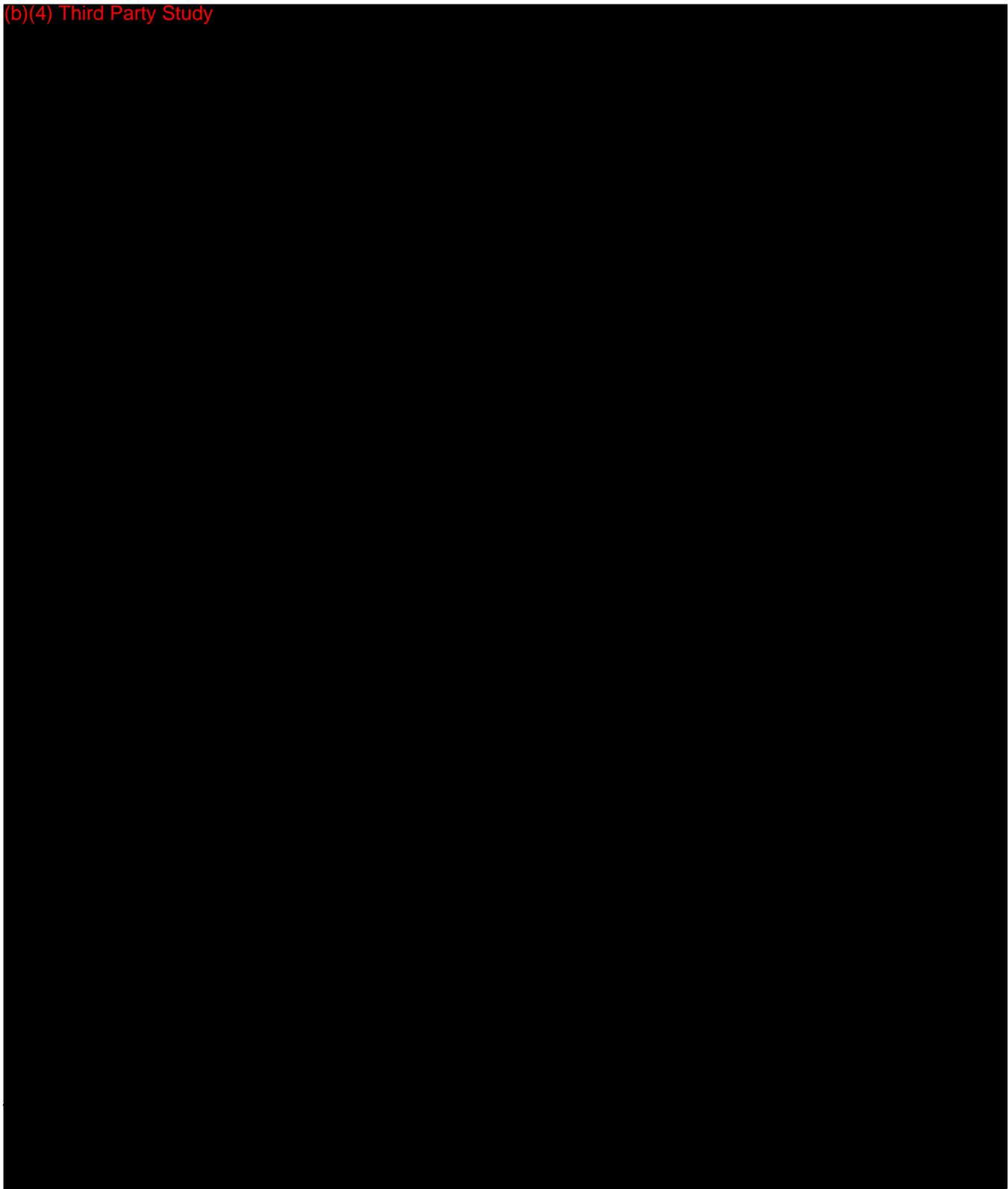
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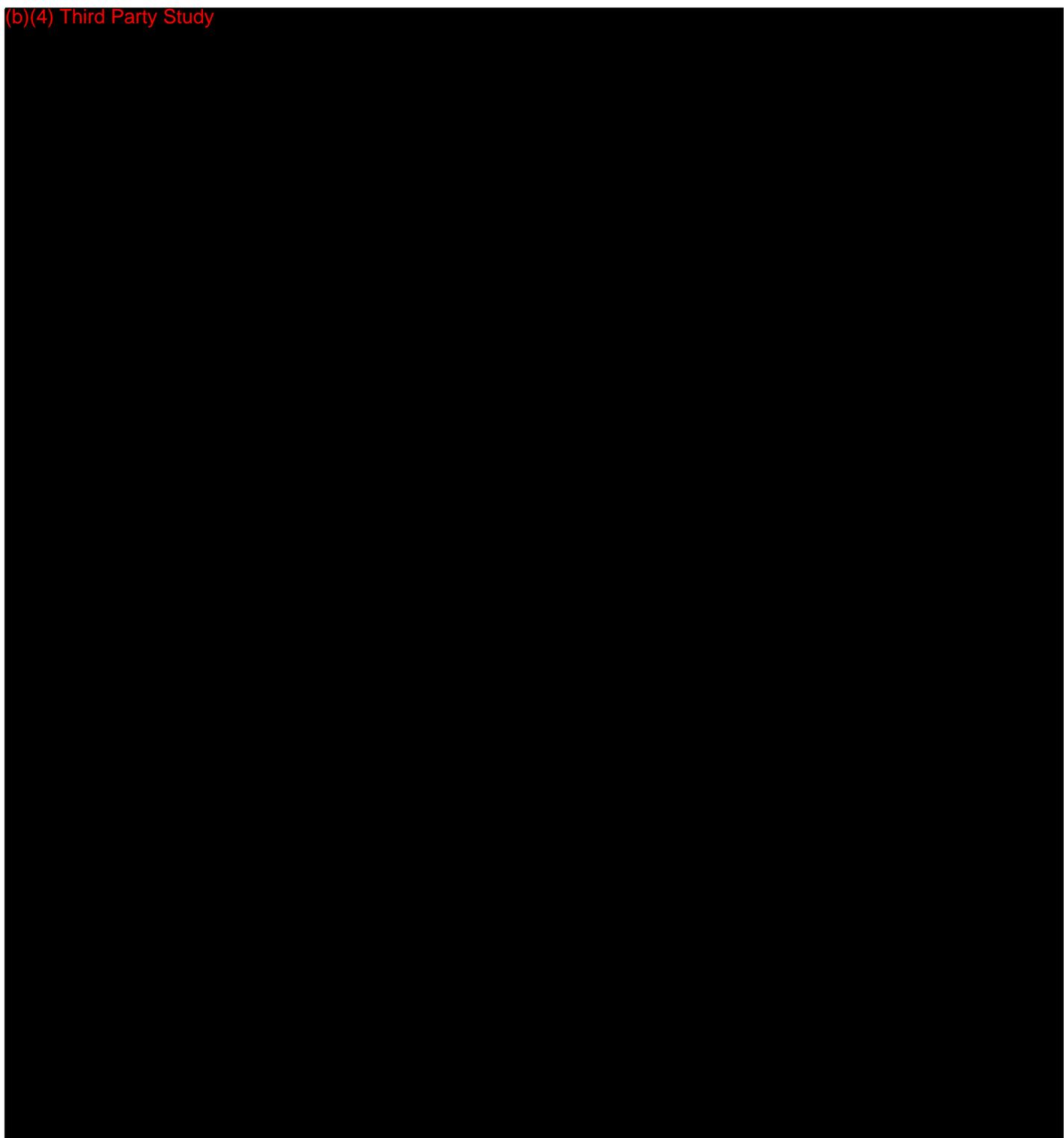
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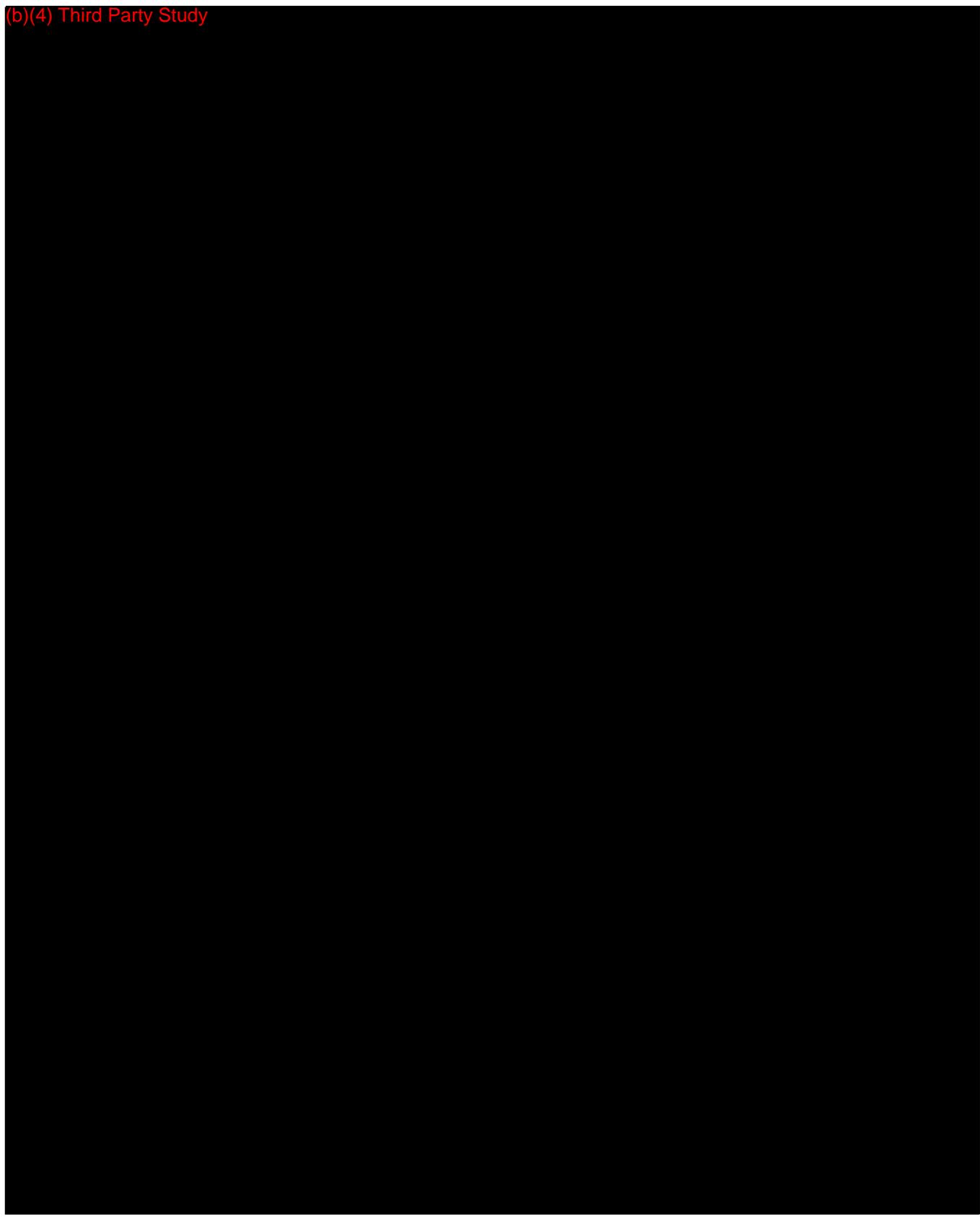
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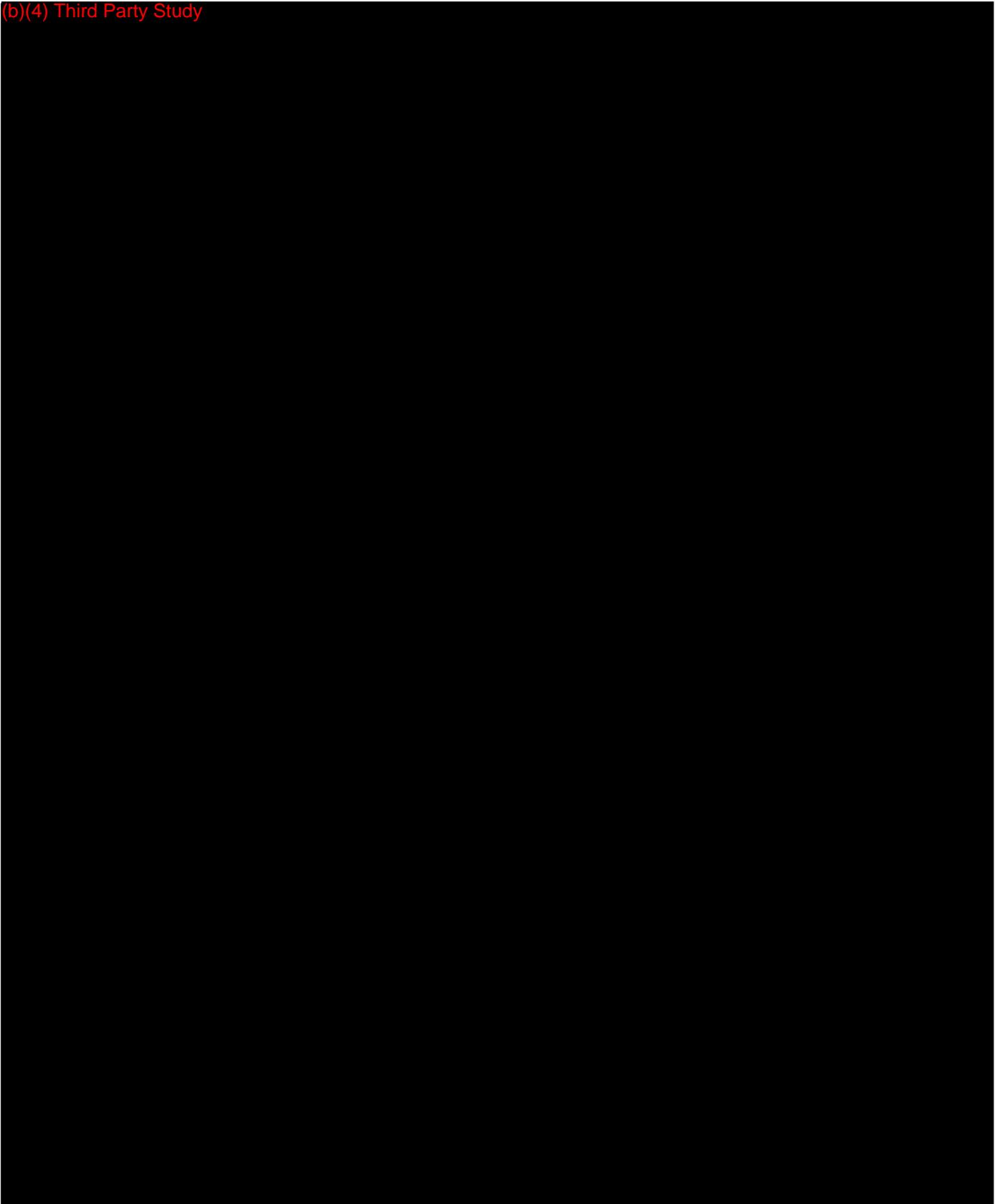
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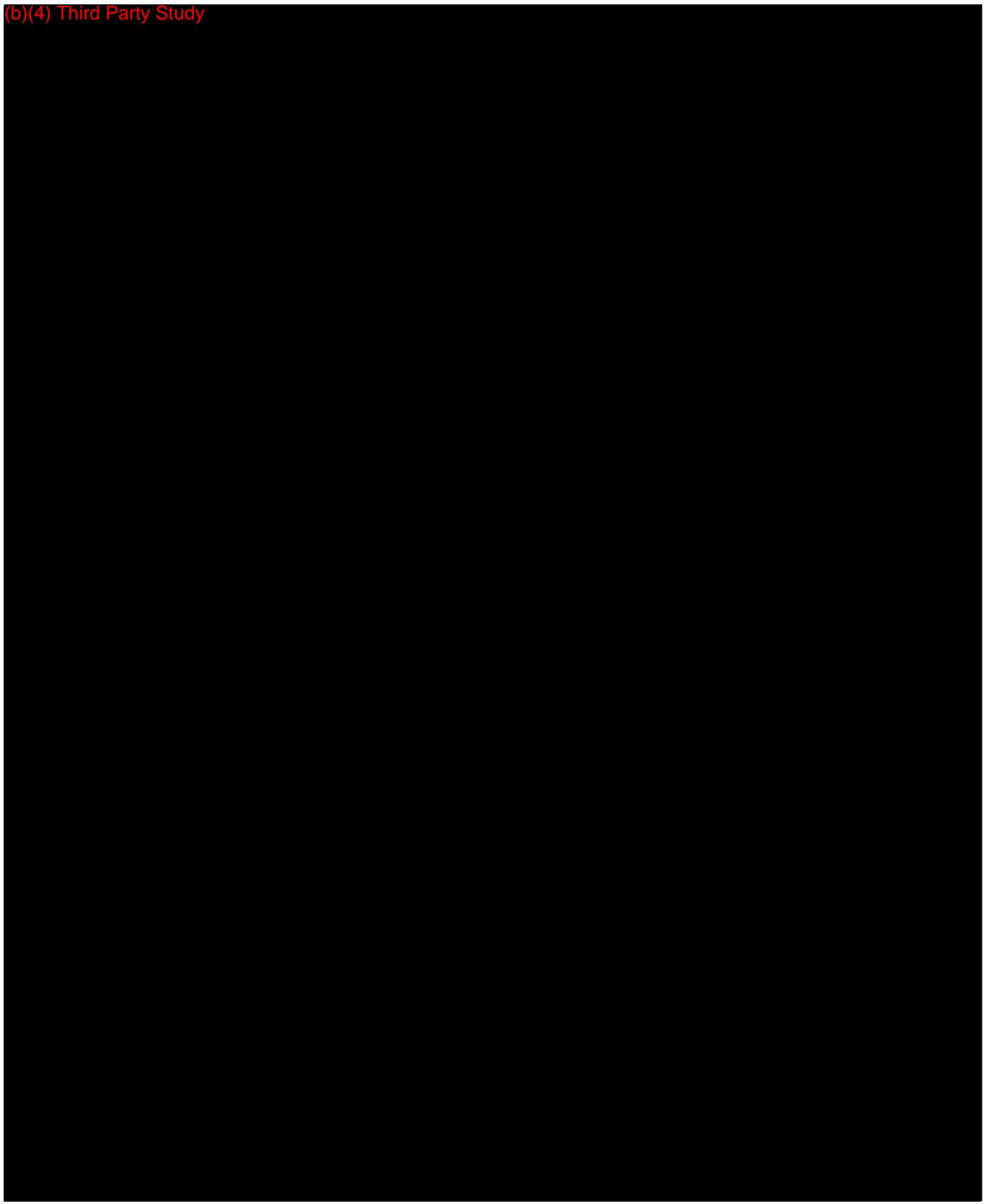
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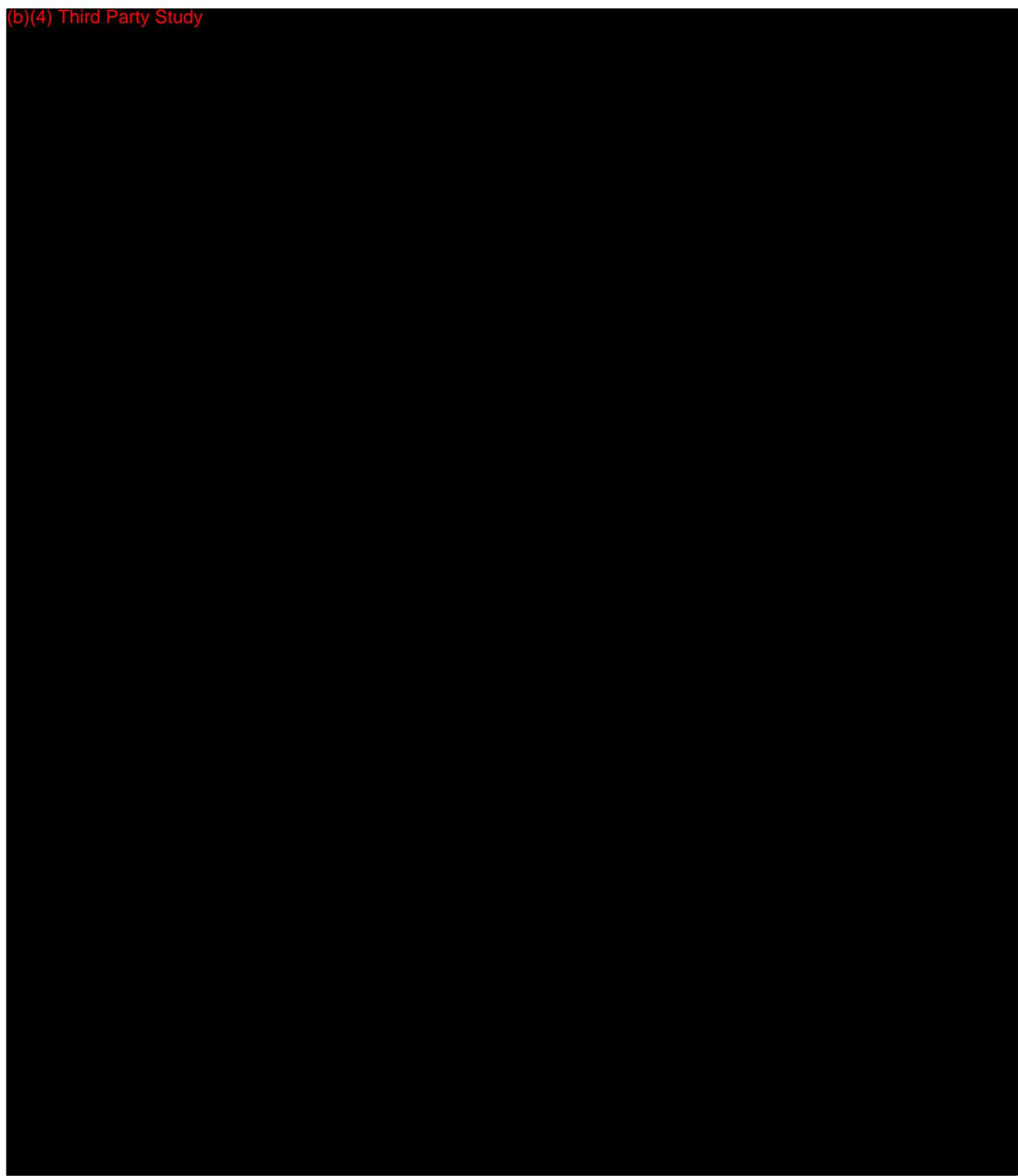
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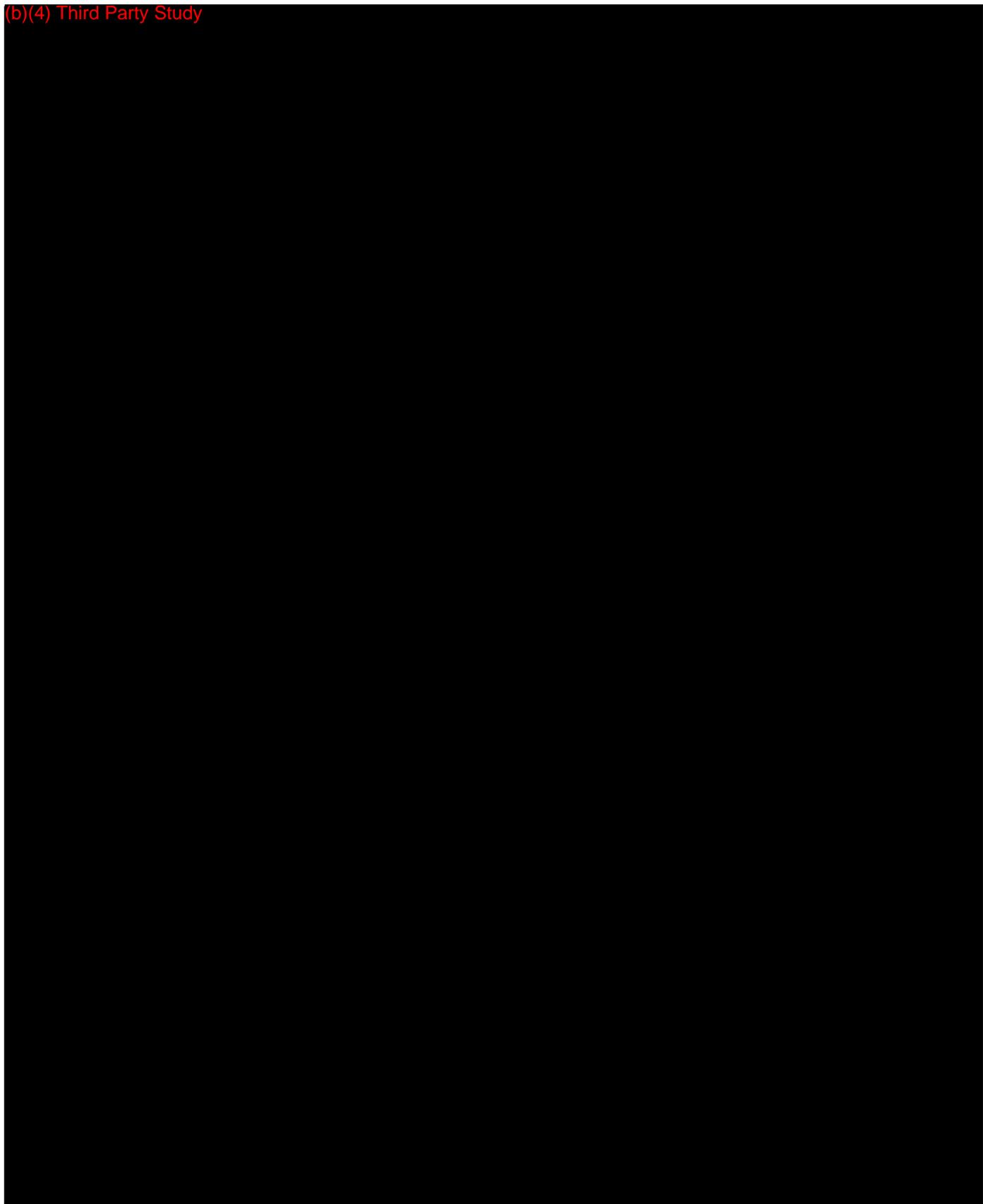
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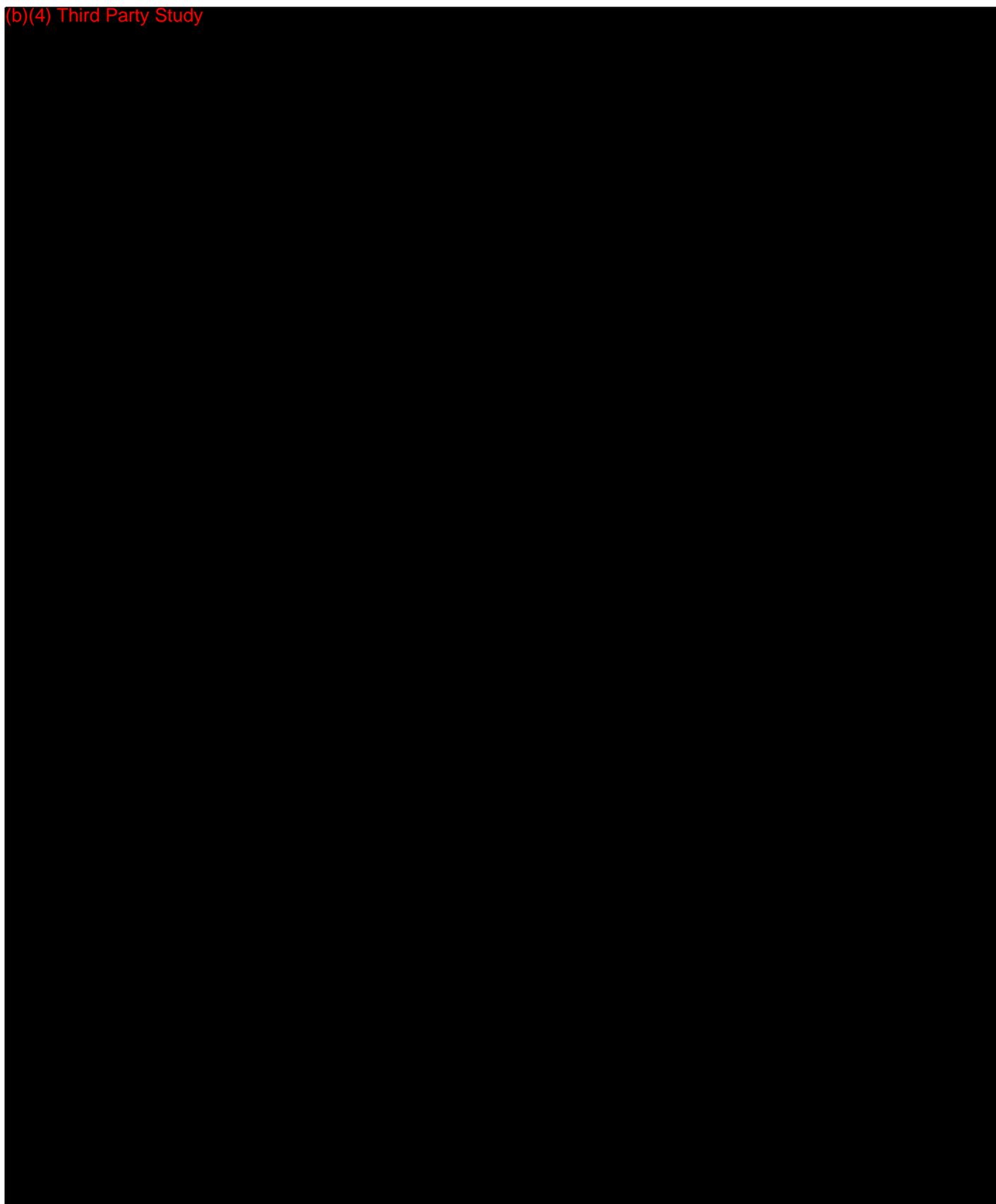
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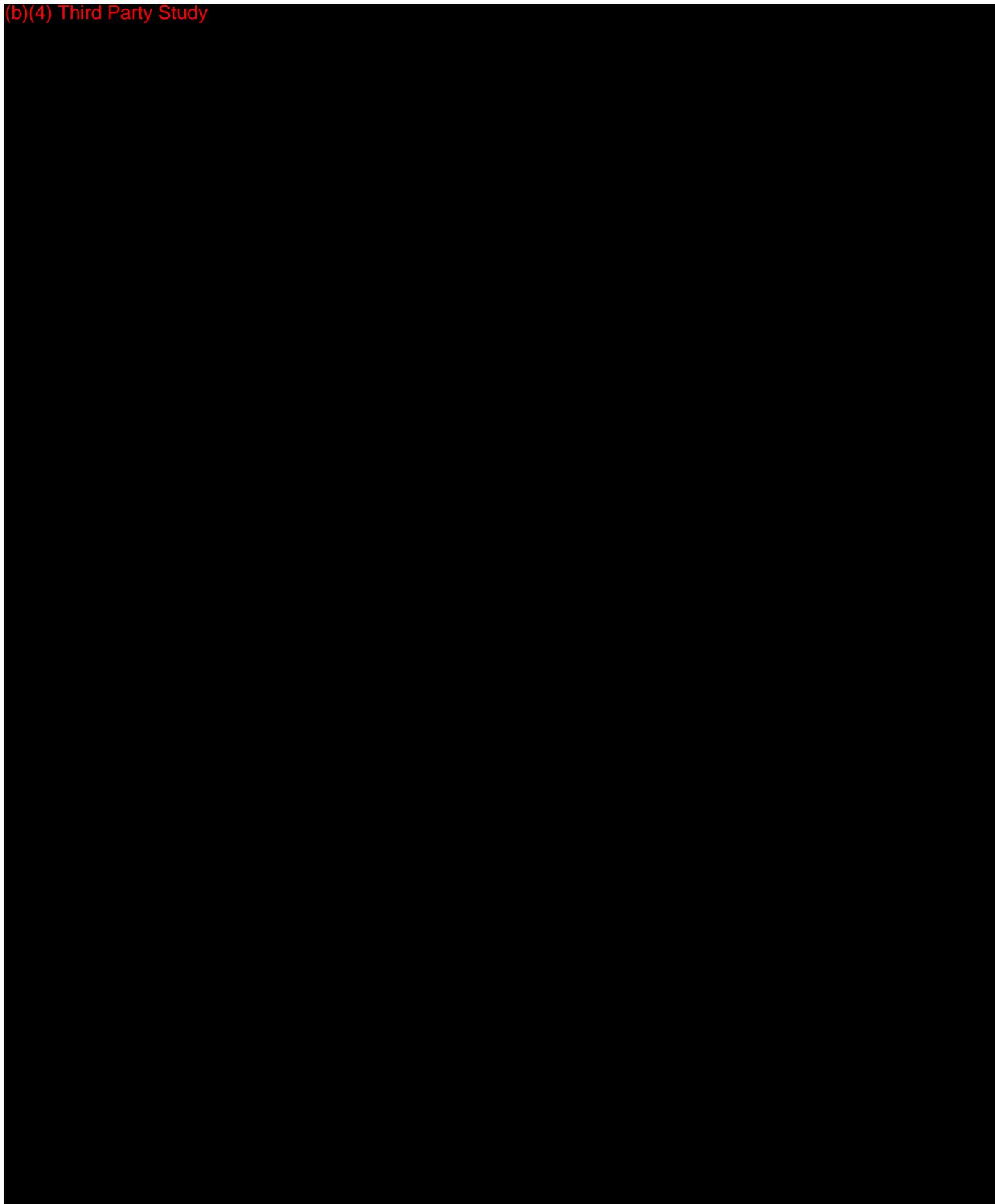
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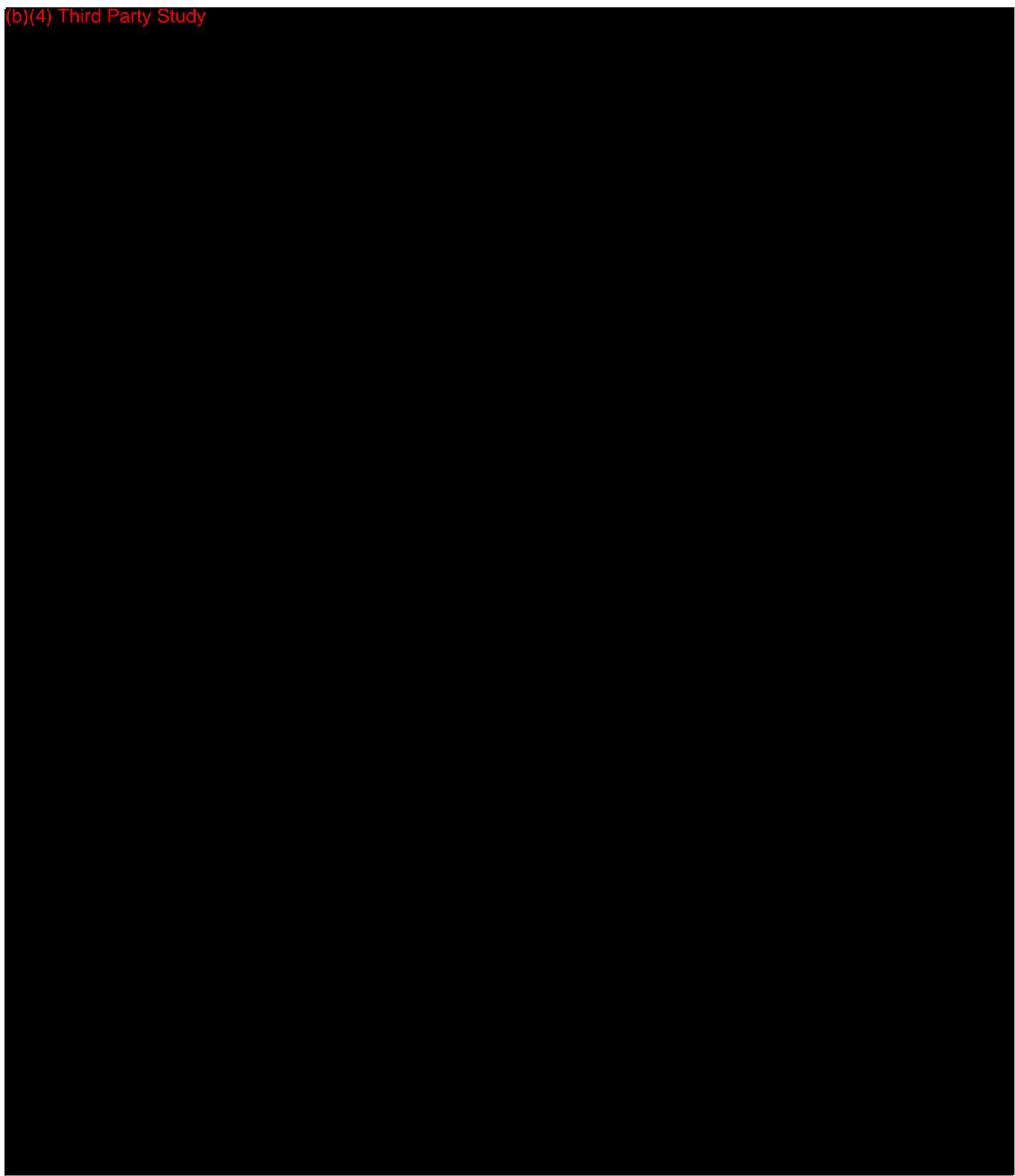
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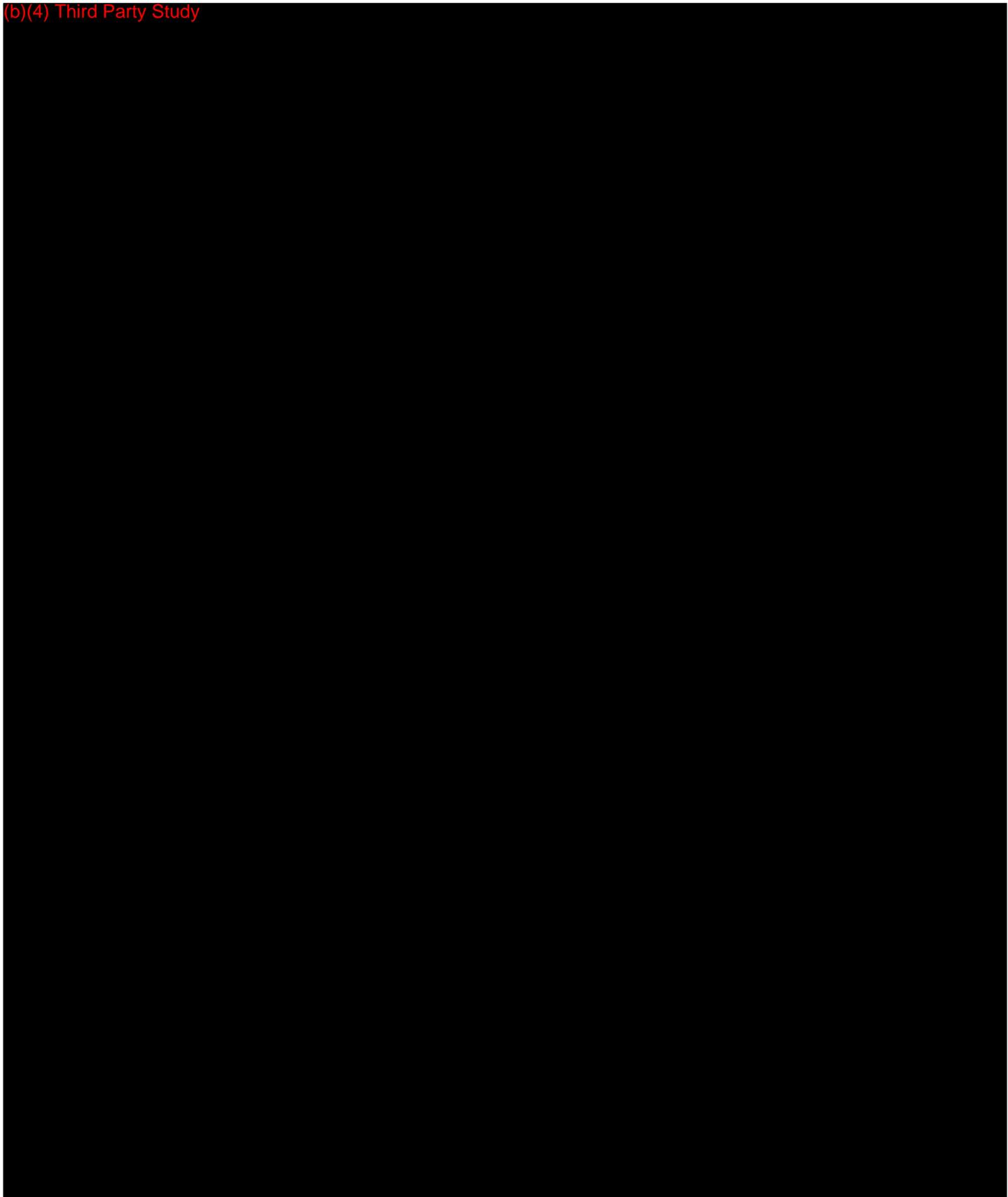
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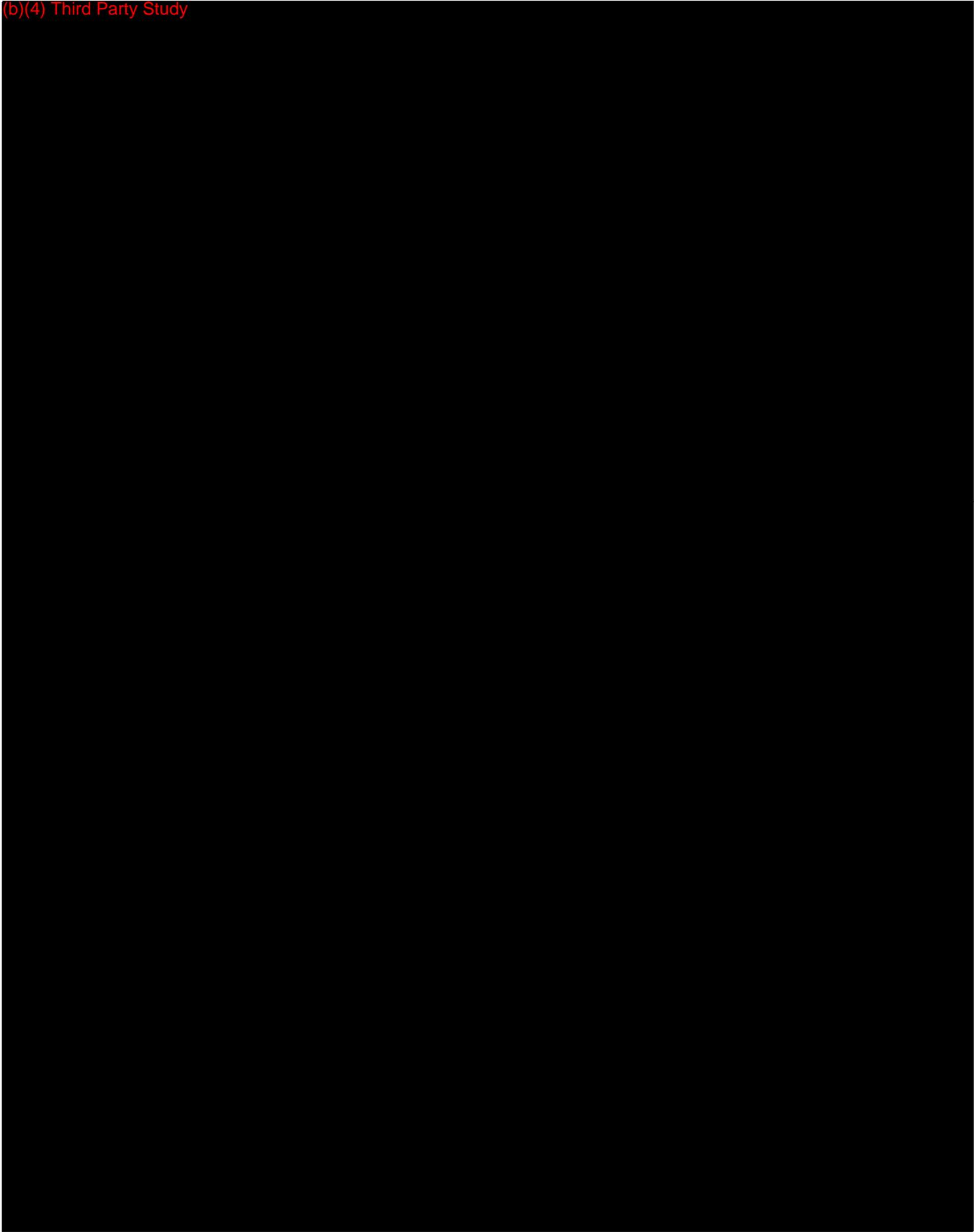
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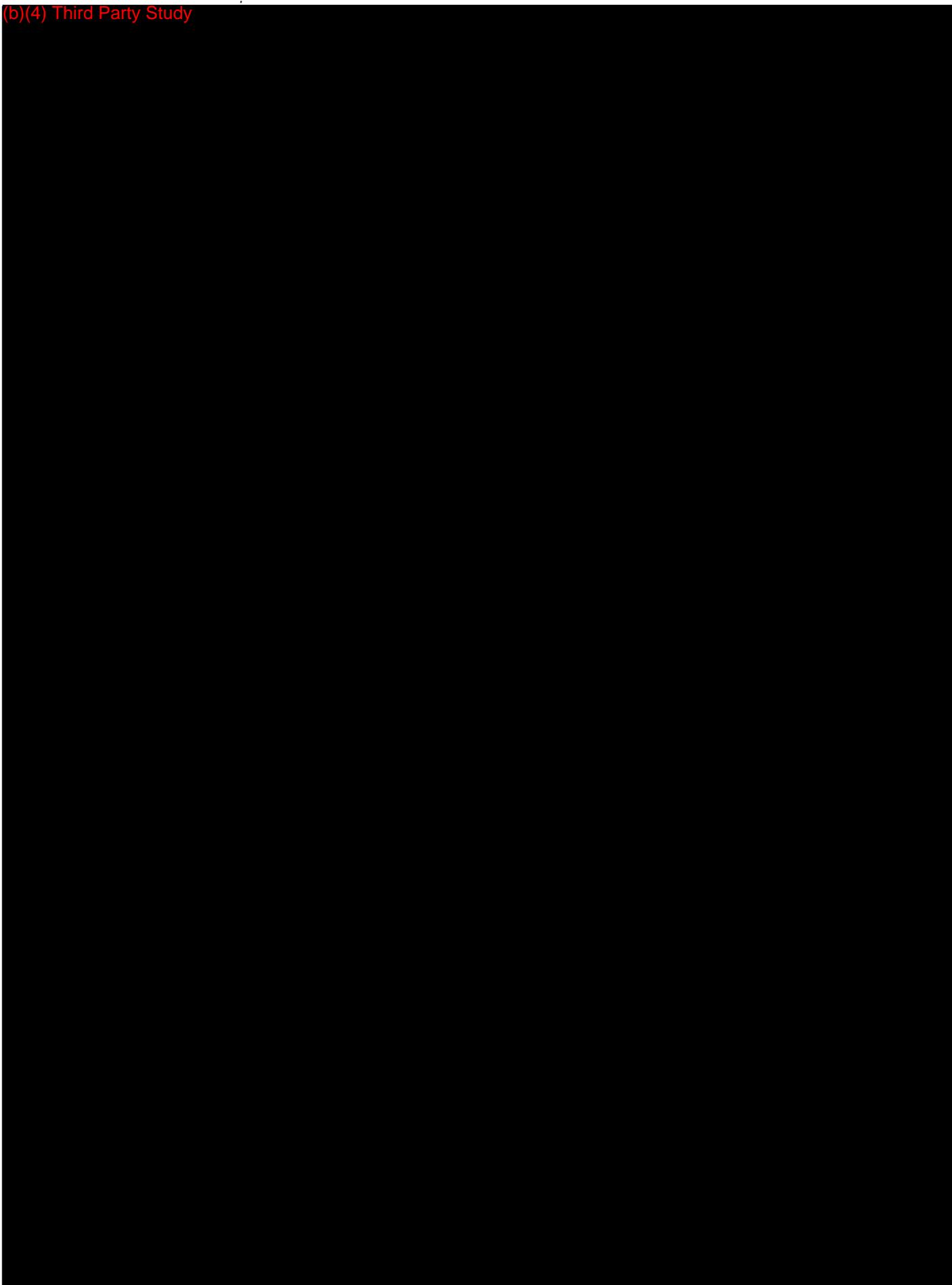
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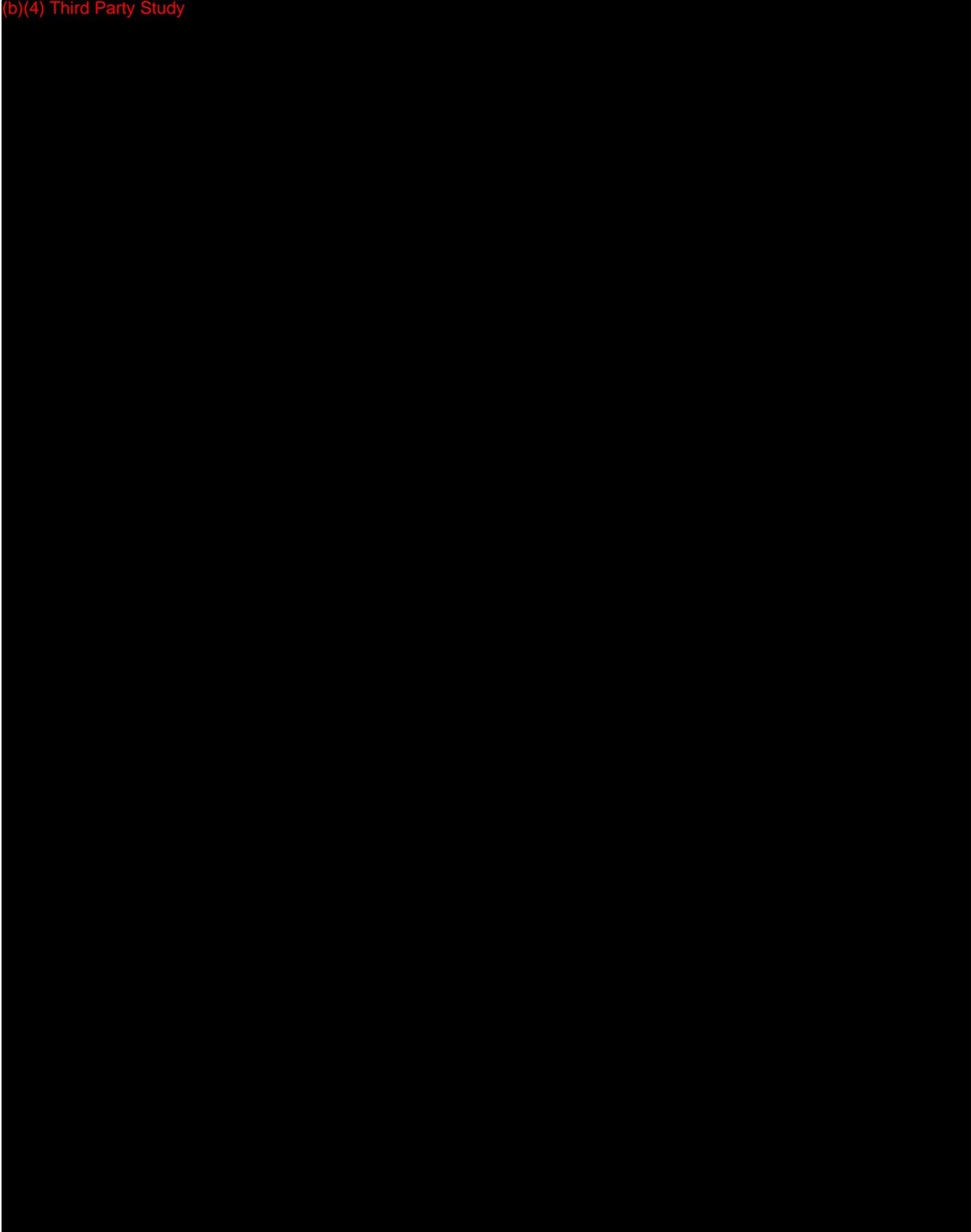
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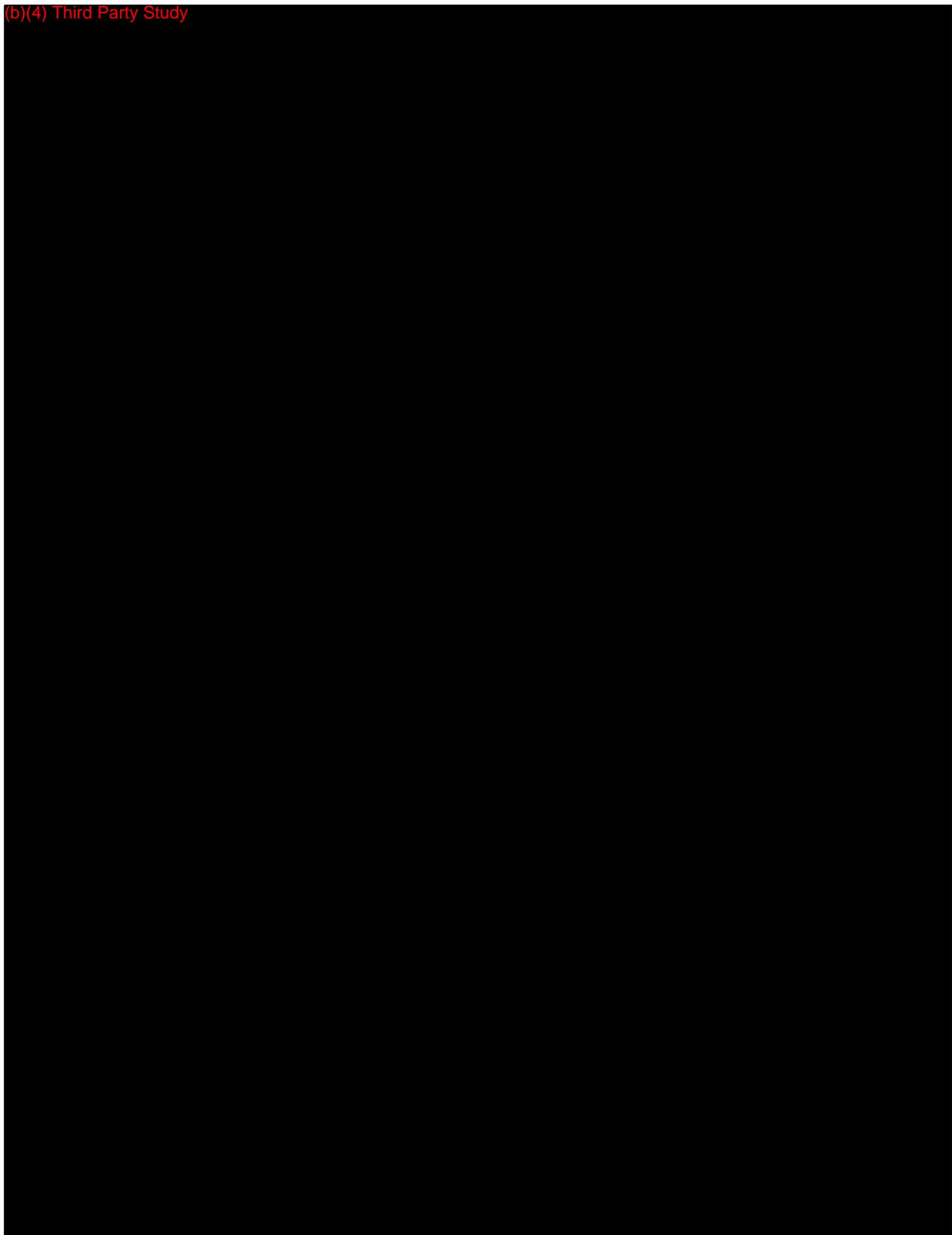
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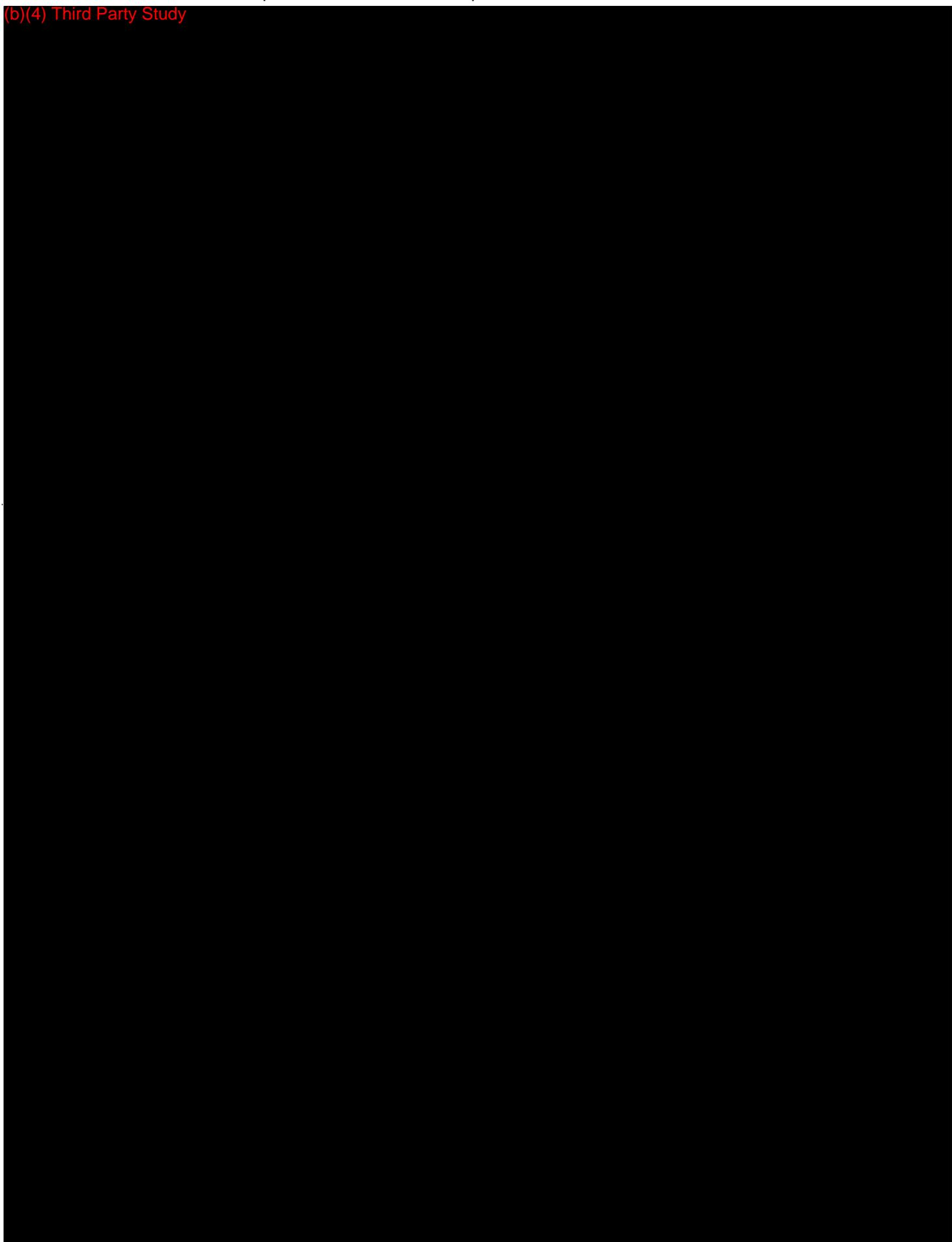
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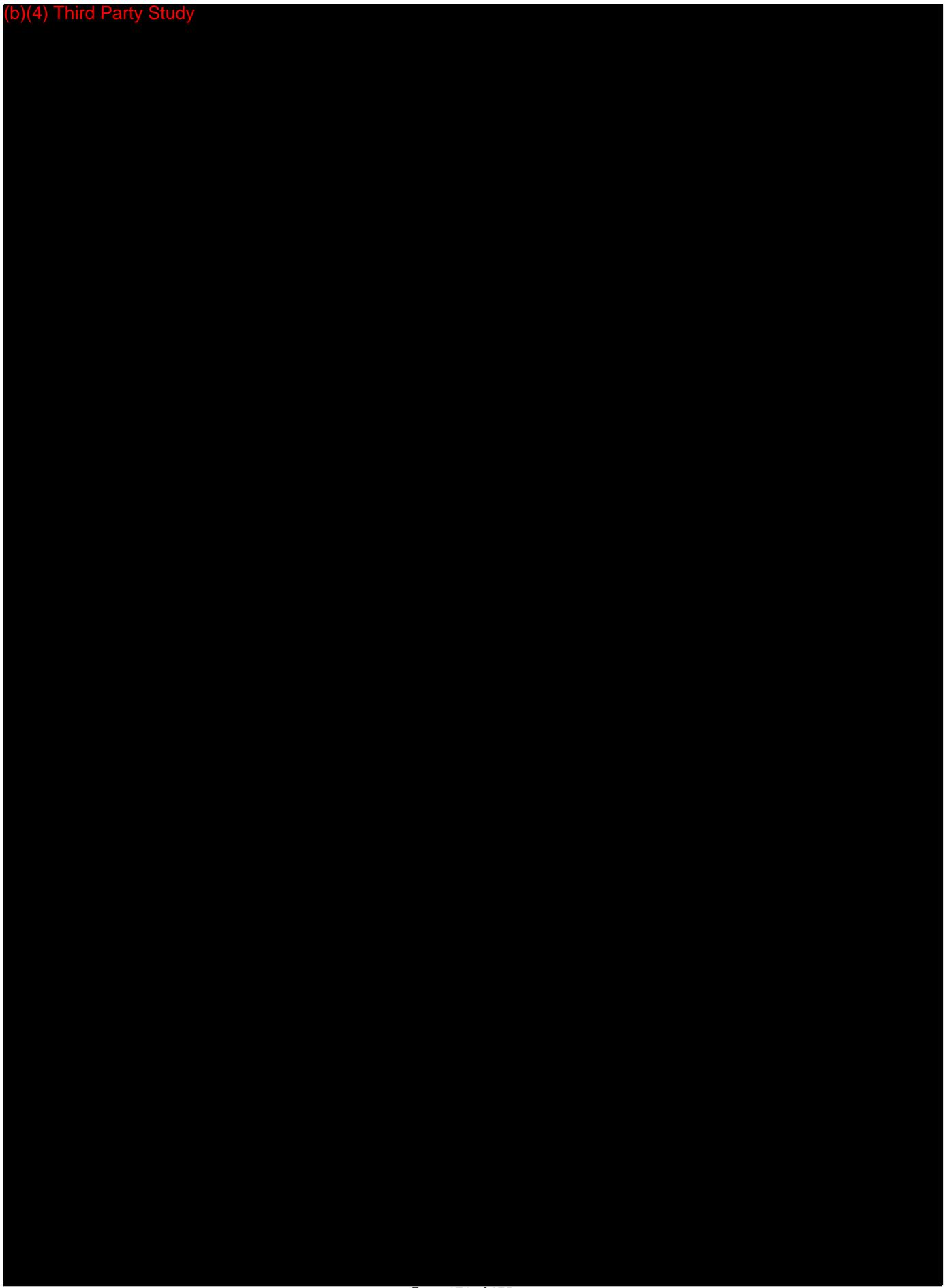
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(b)(4) Third Party Study

